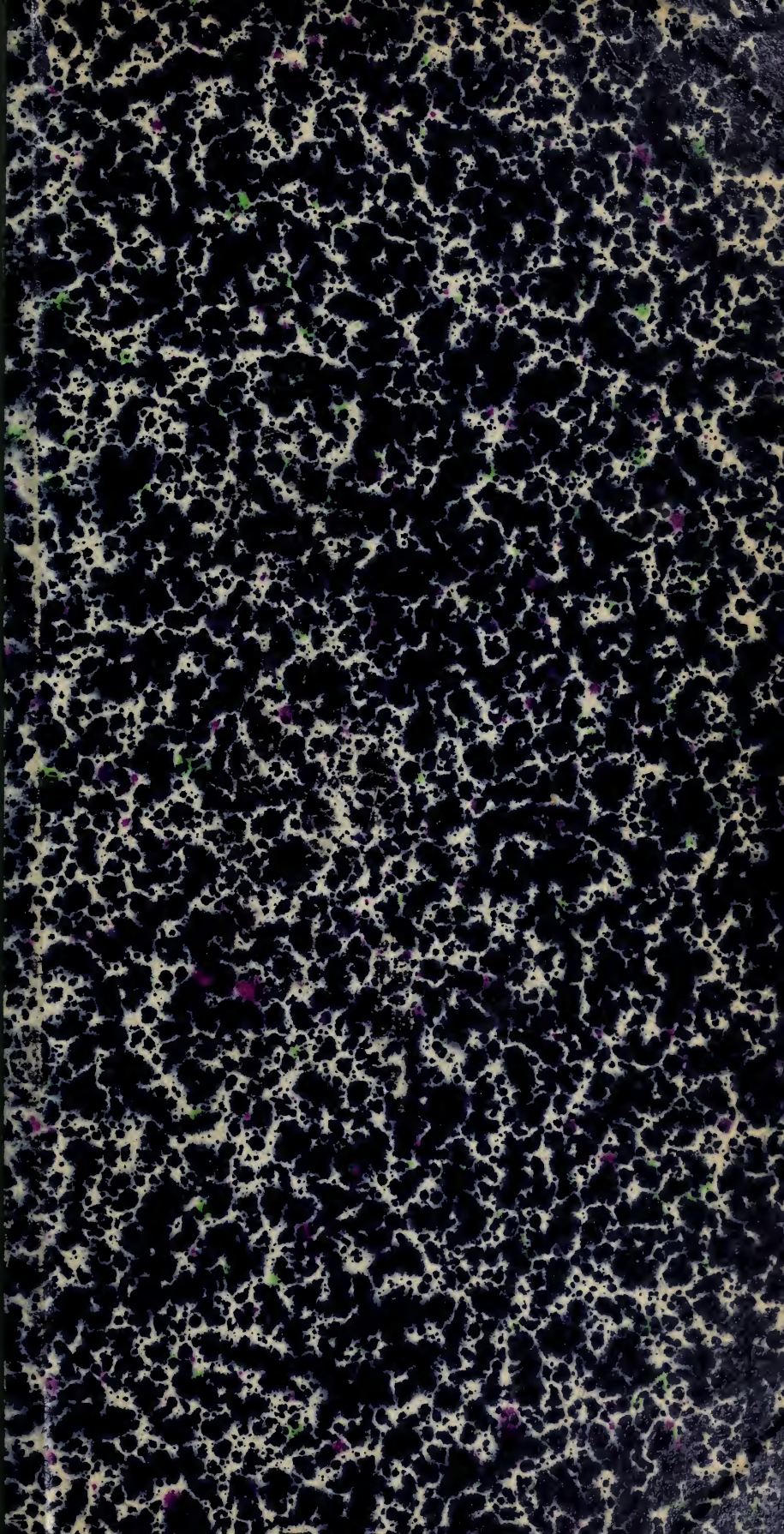

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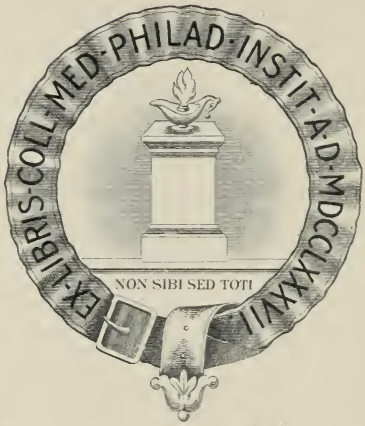

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VOLUME SIXTEEN

OF

The Wisconsin Medical Recorder

F. W. VanKirk, Editor
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JANUARY TO DECEMBER 1913

Janesville, Wisconsin

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Wisconsin Medical Recorder

A Monthly Journal of Medicine and Surgery, devoted to the best interests of the profession

VOL. XVI JANUARY, 1913 NO. 1

WHY WE GROW OLD

G. G. BURDICK, M. D. and THEODORE C. F. ABEL, M. D., Chicago

Continued from Page 407 December Recorder

INNOCULATION IMMUNITY.

A curious anomaly has developed in the use of this method of conferring immunity on a person. If we take a patient suffering from a chronic contagious disease and make a culture of the germs, we can kill them by certain methods and use them again in the treatment of the disease, and with success.

In general the bacteria are grown, and after being sterilized, they are suspended in a fluid so as to give a certain number to a given quantity of fluid, and they are injected under the skin of the patient by means of a hypodermic syringe in doses of from 50,000,000 to 500,000,000 at a time. This procedure starts the defensive forces of the body into activity and after it has been repeated a number of times an immunity is established that protects that particular individual from further harm.

DANGERS OF SEPTIC DISEASES.

Much ignorance is abroad regarding contagious diseases and parents have been known to expose their children to these diseases on the theory that they must get it anyway, and they might as well have it now as at any time. To the scientist this argument is still little less than criminal as his knowledge is more perfect. He alone realizes the far-reaching effects of the toxins from these diseases.

Any observing physicians who has been allowed to follow a child who has apparently recovered from, say scarlet fever, will have no difficulty in detecting its profund effects upon metabolic processes during its future life. In many cases only the laboratory many be able to see the error in the general relationship observed in the end products of metabolism, at other times it apears in such a manner that the clinician can observe its results.

POISONOUS TOXINS.

The absorption of these albuminous poisons is followed by profound changes in the human body. They are elaborated by the growth of bacteria upon proteid material and have a very destructive action upon living cells. Many of these toxins have a very destructive action upon living cells. Many of these toxins have a selective action upon specialized tissue, like the diphtheria toxin upon nervous tissue causing paralysis, that may be more or less permanent upon all the factors in a given case.

Scarlet fever toxins, on the contrary, show a disposition to destroy secreting glands of the body, bringing about marked alterations in their function in after life. Numerous cases of chronic invalidism in after life can be traced unerroneously to the destruction wrought by an attack of this terrible scourge of childhood.

Cerebro-spinal meningitis toxin are usually fatal if the proper antitoxin is

not administered early and in large amounts. In these diseases the toxin forms a close union with nerve tissue and alters its form and function permanently.

TUBERCULOSIS.

In this disease we have a special causative agent called the tubercle bacillus, which in the great majority of cases at least, finds its entrance by way of our food. The sources of infection are to be found in contaminated milk from tuberculous cows, or, as sanitariums are beginning to suspect, from food that has been previously contaminated by flies who had paid a prior visit to the sputum of some patient who had carelessly thrown it about, so that the dictum had gone out from competent observers of "no spitting."

NO CONSUMPTION.

We are now rapidly approaching the era of the brotherhood of man, and the conviction is growing that it is no defense to plead ignorance. It is doubtful if any more moral guilt obtains in the case of the "fool who did not know it was loaded," the one who rocks the boat to a fatal issue," than the careless individuals who willfully deposit in public places or in their own homes, material that will cause death or sickness of a fellow-being.

We are our brother's keeper, or should be, even if our efforts are not individually appreciated by him. The tubercle bacillus produces an intracellular toxin that has a specific effect upon the cells of the body, causing them to break down, and for this reason this disease was called consumption, before its actual cause was known, a steady progressive loss of flesh ensuing as long as the production of toxins takes place. In this disease nature rarely fights if not helped, but doggedly retreats before the enemy until it has won its victim. With this particular poison, if present in large amounts, all energy is destroyed and the patient is disinclined to exertion. The end products of metabolism are increased, just in proportion with the production of toxins, until at times it would seem that the body is actually burning up, a suppositon that is in reality true, as may be noted by the severe fever that accompanies bad cases of mixed infection. In these cases where we have the pus germs present with the tubercular bacilli the combined toxins usually cause a rapid termination of the disease, if proper attention is not given to the matter in the beginning.

NATURAL DEFENSES OF THE BODY.

It is probably no exaggeration to say that any normal individual swallows a teaspoonful of germs a day of some kind and it is not improbable that many of these are pathogenic, or disease producers. That we are not all sick is undoubtedly due to many causes, as natural or acquired immunity, and the natural defenses of the body to infection. When we introduce food into our stomachs Nature produces a fluid called the gastric juice which contains a high percentage of hydrochloric acid. The amount present is sure death to many of our disease-breeding bacteria. The two or more hours they must spend while in the stomach in digesting or preparing food for entrance into the intestines is usually sufficient to bring about their destruction or at least modify their pathogenic properties to a marked degree.

The few that may escape this unhealthful environment are passed onwards into the intestines where under normal conditions their development would be retarded. If by any means some of them are absorbed by the lacteals and find their way into the blood current, they are immediately run down and consumed by the second body defense.

These bodies, known familiarly as the white blood corpuscles, act as a

defensive army to destroy any foreign articles that may menace the body. They pass freely within or without the blood vessels and exhibit a wonderful intelligence in hunting out and destroying an invader. This is accomplished by enfolding the bacteria within their own bodies where, in a short time, it may be observed to be broken in pieces, which gradually disappear. There are normally about 9,000 of these warriors to each cubic millimeter of blood but in times of great need as high as 90,000 may obtain.

THE PUBLIC SCHOOL.

By placing great numbers of children in close quarters we have the best conditions for the spread of contagious disease from the immune children to those who are susceptible to the disease, and for this reason we note the simultaneous development of this class of disease with the opening of school. It would be the best kind of an investment for the country to have a strict examination made of each child weekly by a competent practitioner rather than to perpetuate the present farce carried on by some medical failure who is willing to work for $60 a month, a sum wholly inadequate for the careful conscientious work demanded.

(To be Continued.)

DEPT. OF THERAPEUTICS

WM. F. WAUGH, A. M. M. D., Chicago, Ill.

The present season has brought with the winter's cold and wet an unusual prevalence of respiratory catarrhs. these appear to be generally of the influenzal type, with Protean manifestations, aches and pains innumerable; simulating rheumatism or neuralgia, but of unusual acuteness, and always with the profound debility that constitutes the one unvarying element of the clinical picture.

One of the ways in which this weakness is shown is the way the patient responds to ordinary doses of any medicine given, in an unexpectedly prompt and decided manner. Give strychnine a milligram and as often as not collapse follows. The impressibility of the body and all its functions is increased so that we must be cautious in our dosing. Many times lately I have been thankful to the old Belgian who introduced the method of cumulative small-dosing. Give the strychnine in doses of a fourth milligram every half hour, and by the second or third dose you will find he has had enough—the evidences of full tonicity being as marked as after the sixth or eighth dose ordinarily.

This is especially the case with every remedy whose action is in any degree depressing. Give a grain of acetanilid and you wonder if by any chance the druggist has dispensed five-grain tablets. Give moderate doses of lobelia and you realize why our fathers dreaded the depression of this potent drug. After any sedative the vital resistance crumbles.

Yet this same lobelia is one of the most effective remedies for the acute respiratory manifestations of this season. Usually I employ the granules containing each a milligram of what we used to term lobelin—now lobeloid —a purified extract that presents all the active constituents of the plant with the minimum of the inert parts. It suits those who still cling to the idea of a whole-drug action, but is not nearly so effective and manageable as the pure active principle, the alkaloid lobeline, if you can get it. Of either, take the single dose, disolve it in ten tablespoonfuls of hot water, and give one

tablespoonful every ten minutes until the faint beginning of nausea is felt—then stop. The mucous hyperemia is allayed, the hot irritation soothed, the cough is loosened, and as the various emunctories are opened and elimination hastened, a singular feeling of lightness and increased power, a sense of well-being, follow. I have often read in my Eclectic works of the claim that Lobelia stimulated the stomach and bowels and increased the activity of all the vegetative functions, but never realized this until I began to give these very small doses.

There is nothing singular about this observation. Take any sedative, and that means relaxant, and if you give just enough to relax vascular tension, there will be an increased supply of blood to the eliminating organs, and more toxins excreted; more blood for nutrition to any suffering tissues, and better nutrition—and that means more likelihood of curative processes being inaugurated. We have been too much afraid of the name of sedative, or depressant, and make a fetish of the tonics. We must follow out the actions of a remedy to the end if we expect to apply it intelligently—that is, with comprehensive purpose.

Lobelia aids digestion by increasing the blood supply to the stomach and bowels, and by stimulating the flow of the digestive secretions. Very small doses may raise blood pressure momentarily, but the effect of doses pushed as usual to beginning nausea is always vasorelaxant. It loosens cough by increasing the secretion of mucus and by dissipating hyperemia. The claim that it acts as an antitoxin in diphtheria has been made, but this may be based on its power of increasing the elimination of toxins so greatly that the action really resembles that of an antitoxin. Its relaxant power is invoked in cases of dyspnoea, in whooping-cough, asthma, hay fever, and other respiratory spasms. It has been employed to loosen the death-grip of angina pectoris, with success; but here we have the coming remedy in digitonin, when its remarkable powers are comprehended. Curiously enough lobelia is held to energize the contractions of the gravid uterus. while it also relaxes rigidity of cervix or perineum. That these antagonistic effects may be secured from the same remedy by varying the dosage is a problem well understood by those who have taken the trouble to study drug action.

I have before this referred to the curious sense of elation, or at least of well-being, that follows the action of lobelia. This induces so good an abserver as Lloyd to credit the plant with special virtues. Those who have closely observed the action of remedies employed to completely empty the bowels are quite familiar with the phenomenon, and will conclude that since lobelia induces it this drug must be an effective means of accomplishing this need. In three ways lobelia does this —by relaxing the circular fibers of the gut, by stimulating the longitudinal fibers on which the expulsion of the contents depends, and the largely increased intestinal secretion.

The relaxation of vascular tension allows an increase in the supply of blood to all parts, especially to the nervous centers and chylopoietic organs and there is a consequent increase in the activity of these functions. This is best seen if the drug be given in small and frequently repeated doses, stopping well short of the nauseant effect. The older Eclectics employed lobelia also as a sedative in febrile cases but we are so amply provided here with aconitine, veratrine and gelseminine that it would be difficult to cite a case that is not better met with these.

The pure alkaloid exists in very small proportions in the plant, and is so difficult to isolate and so expensive that it is not now listed by any of the

houses that supply the active principles. The best preparations available is a purified extract known as lobelin or lobeloid. Of this a grain may be given as an emetic, in hot water, repeated every ten minutes until effect. As a diaphoretic or expectorant 5 milligrams every hour until faint nausea or relaxation is felt; or until catharsis results if this be the object. As a means of improving nutrition a milligram every two hours suffices.

ELECTRO THERAPEUTICS

By H. C. BENNETT, M. D
M. E., Lima Ohio

THE STERILIZATION OF THE UNFIT BY MEANS OF THE X-RAYS.

(Archives of the Roentgen Ray, August, 1912, No. 145.)

"One of the greatest problems which confronts humanity is that of dealing with the ever increasing number of insane persons, imbeciles and idiots, who are yearly added to our population. While on the one hand there is a tendency for the total birth-rate to decrease, there can be little doubt that it is on the increase among the special individuals whom it would be our endeavor to restrain."

"At the present time we have something like 132,000 insane persons in asylums, who are absolutely useless beings, at an average cost of about 14s. 6d." ($3.48 in United States money) "per head, per week, the total sum for the payment of which has to come out of the pocket of the ratepayer. To this number we must add the habitual drunkards, idiots, harmless imbeciles and criminals, who are largely kept in the same manner."

"It is reported that last year 111 women were sent by the Lancashire magistrates to the Inebriates' Infirmary at Langho. These 111 women have brought into the world no fewer than 367 children. More than half of these —to be correct, 205—are dead; the remainder, however, will in all probability be brought up and carefully nurtured to help fill our gaols and asylums."

"Experimental investigation has taught us that in the X-rays we have an agent which can bring about such changes in the sexual organs that complete sterilization results, and in animals this can be done without producing any ill-results, or at any rate any effects that have so far been noticed."

"The chief point about this method, to which I particularly wish to draw your attention, is that while it produces sterilization it does not produce impotency."

"At the present time the X-rays are only to a very slight extent used by quacks, for the simple reason that they are so fraught with danger that they are afraid of them. There would be little difficulty in drawing up an act for bringing about sterilization of the unfit, and owing to the ease with which it could be brought about, to the painlessness of the operations, and to the fact that impotency does not result, we may assume that a large number of feeble-minded persons who are sufficiently sane to be alive to the necessity would be only too willing to submit themselves for the public good; for the others who are beyond this we need have no consideration.

"The matter is of great and increasing importance that it is well that we should consider it from all its standpoints; and at the present time, when a bill is about to be brought into parliament for the restraint and care of the mentally defected, it has a special importance, and is, perhaps, of even greater importance than the imposing

of penalties in the case of marriage with defectives. W. H. Mick (Omaha).

The physician in the French Navy whose investigations have led him to conclude that Hertzian waves as used in wireless telgraphy do definite physical injuries to those who come into their vicinity has against him the main current of experience and science, says the Marconigraph, of London. No protection of any special kind, either for the eye or the exposed parts of the body, is provided for, or demanded by, wireless operators. The notion that a wireless telegraph operator can have his health injured by the use of the electrical apparatus is based on some confusion between Hertzian waves and Rontgen rays. Now, it must be clearly and primarily understood that Rontgen rays, X-rays, and so on, have nothing whatever in common with Hertzian waves. Rontgen and X-rays do have a powerful physiological effect, and they are utilized on that very account. But Hertzian waves cannot be legitimately supposed to have any effect on the organism at all.

The idea that ultra-violet or other troublesome rays come from the arc used in wireless telegraphy is quite absurd, for the simple reason that the arc is enclosed. Thus the wireless operator is not affected by the arc in any degree, and so he is no more affected by the Hertzian waves than other persons in different parts of the body of the ship. Unfortunately everything electrical has to run the gauntlet of prejudice, and this attack on the hygienic properties of wireless telegraphy is easily paralleled by other attacks.—Telegraph Age.

A discovery which will, it is hoped, remove the risks of X-ray operators, was announced recently at a meeting of the French Academy of Sciences by M. Droit, who had been impressed during some experiments with the remarkable capacity of silk to absorb metallic substances. With the aid of silk manufacturers, M. Droit succeeded in preparing a silk so impregnated with lead and other substances as to be impenetrable to the rays. One piece of silk thus charged weighs 266 grams to the square meter, and a glove made from it has proved a complete protection against the rays.—Medical Record.

GENERAL POINTS IN THE DIAGNOSIS OF SURGICAL DISEASES OF THE KIDNEYS.

History—Of first importance, as to duration, mode of onset, habits, family history, coexistent conditions, e. g., pregnancy. Age of some value, especially in tumors and tuberculosis. Sex of little value except in floating kidney.

Pain—Character of renal and ureteral pain. Significance of pain in various conditions. Often absent even in calculous disease.

Fever—May be most marked symptom. Often unaccompanied by any localizing signs (obscure fever of renal origin). Very frequently there are localizing symptoms.

Tumor—Characteristics of renal enlargements and lesions in which they are found.

Local Signs—Tenderness over kidney or along ureter, muscular rigidity, local evidence of infection.

Technical Aids—Cystoscopy and ureteral catheterization. Radiography aided by ureteral lead bougie and pyelography.

This concise statement of valuable diagnostic points in Surgical Diseases of the Kidneys was given to the Rock County Medical Society at a recent meeting by Dr. D. N. Eisendrath of Chicago, Ill.

DEPT. OF GENITO-URINARY DISEASES

Conducted by
NELSON F. McCLINTON, M. D.
Chicago, Ill.

HYPERTROPHY OF PROSTATE.

The cause of hyperplasia of this organ is not definitely known, numerous theories have been advanced which while interesting have not been generally accepted.

The nature of this hypertrophy depends on which tissue is involved. In one form there is an increase in the connective and muscular elements which may either be diffuse or circumscribed, cut section will show firm nodules between which are soft areas, these being made up from healthy or diseased glandular tissue.

In the form where the glandular substance hypertrophies and the mushular substance is unaffected, cut section shows the gland to be soft and spongy, on pressure fluid can be expressed freely.

There is a differnce of opinion as to which of the above forms is the most common. The statistics of some authors show a preponderance of the myomatous type while others claim to have had more of the adenomatous type.

From a practical and clinical viewpoint it is wise to consider carcinoma of the prostate along with hypertrophy as in the majority of cases presenting themselves with prostatic trouble the symptoms are so similar this phase is overlooked but as carcinoma is so common, it should always be considered.

Young states that in a series of one hundred prostatectomies twenty per cent were carcinomatous.

In a recent paper by Lowsley he states that practically all carcinomata commence in what he calls the fifth lobe namely the portion of prostate lying in front of the ejaculatory ducts. This is a very important point to remember from the fact that this portion being accessible to rectal examination one is able at an early period to either diagnose or strongly suspect carcinoma and advise or treat accordingly.

Guyon divides the symptoms into three periods: 1—The premonitory, 2—Retention without distention of bladder, 3—Retention with distension of bladder.

In the first stage the ages for commencement of symptoms is commonly stated to be 50 years, however it be often found beginning as early as 35 or 40 years.

The symptoms in this stage are slight, the general health is unaffected, urination is more frequent both during the day and night, there is noticed a delay in starting the act and the power of projection is lessened, anything that produces a congestion of the pelvic organs increases the above symptoms. This stage may continue many years before passing into the second stage of retention without distention. The second stage the above symptoms increase, nocturnal urination and pain is increased owing to inability to entirely empty the bladder, the patient has a residual urine depending upon degree of obstruction, here it must be remembered that the degree of obstruction does not always depend on the size of the prostate as determined by rectal examination often the obstruction is due to a middle lobe or a bar that cannot be ascertained by feeling through the rectum.

During this stage the patient's health suffers from loss of sleep, the bladder being so distended loses its power to contract and empty itself, however this stage may continue over a long period of time and patient do fairly well unless infection of bladder supervenes and then the downward course becomes more rapid.

How does the bladder become infected?

Either as a result of the retained urine becoming infected through the blood stream or as a result of catheteridation or instrumentation made necessary probably on account of an acute retention.

Too much care cannot be used in catheterizing or in the use of instruments in this class of cases, as many prostatics can date their downfall to this procedure.

It should be added that in this stage the patient may have attacks of complete retention, being unable to expel any urine, this is due to a congestion which after disappearing leaves the patient in the same condition he had been previously to the attack, proving it was not a growth as in which case it would have prevented the patient returning to his former condition.

These attacks of acute retention may recur frequently or a patient may be free for years.

The third stage, retention with distention, inability to pass urine and resulting catheter life.

The symptoms will depend on condition of bladder, degree of infection, ease or difficulty in passing catheter. It is a recognized fact that the life of one having to use a catheter is a few years.

Owing to the engorgment from which the kidneys have to suffer there develops a renal insufficiency with a train of symptoms which usually follow this condition.

The diagnosis—1st the symptoms and age of patient are characteristic. 2nd —Rectal examination, unless it happens to me a middle lobe a bar will usually show that the organ is enlarged. 3rd—Residual urine, the amount will depend upon the obstruction. A normal bladder should be empty after urinating. Along with this examination the increased length of the urethra may be noted being increased in hypertrophy, while in atony or paralysis the length is unchanged. 4th—The cystoscope can be safely used except in a few cases and is a valuable aid as the exact intravesical condition can be observed. Bars, various forms of middle lobes or rare conditions causing obstruction can be seen where other methods of examination would be inaccurate. The main condition to eliminate are paralysis, atomy from arteriosclerosis, tumors, stone and stricture.

In spinal and atonic cases the constitutional symptoms along with the cystoscopic examination will differentiate between hypertrophy and the latter conditions, likewise stone and tumors will be eliminated and to carry out this examination stricture would necessarily be demonstrated.

If the hypertrophy is caused by carcinoma there will be certain cases that it will be impossible to recognize the condition, however there are a few points that should be remembered in regards to carcinoma. Usually the pain is greater. the pain may be referred to the back, kidney region, perineum, abdomen or legs.

By rectal examination the feeling of the gland in hypertrophy has some elasticity and unless too large the gland can be outlined.

In carcinoma the gland feels indurated. in fact it is a stony hardness, even a nodule of this character in a man over 45 years should arouse suspicion.

When extensive carcinoma has occurred. it will first be noticed extending either between or in the region of the seminal vesicles.

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A well trained sensible doctor is one of the most valuable assets of a community, worth today, as in Homer's time, many another man. To make him efficient is our highest ambition as teachers, to save him from evil should be our constant care as a guild.—Osler.

DIAGNOSIS of PELVIC INFECTIONS

By F. W. VANKIRK, B. S., M. D.
Janesville, Wis.

The subject of pelvic infection in women is one so frequently written about, that at first thought, it may seem that there is nothing new to be said in regard to it, and while that in a measure is true, it is a fact, that in the whole realm of Gynecology there is no one branch where so much depends on the correct diagnosis and proper treatment as this one. For this reason it is a topic which is of especial interest to the general practitioner and one on which too much stress cannot be laid.

In taking up this subject, we really must have to include, in a measure, both the etiology and the symptomatology. The common varieties of organisms associated with pelvic infection are: (1) the gonococcus, (2) the streptococcus, (3) the staphlococcus, (4) the colon bacillus, and (5) the tubercular bacillus (rare).

The classification of pelvic infection is so varied that I have decided to consider only those which I deem the most important, namely:—puerperal infection, gonorrhoeal infections, appendical infections, tubercular infections, infections following ruptured tubal pregnancy and ovarian abscesses: I shall try to give the main diagnostic points pertaining to each, for as we know, a lengthy paper could be written on almost any one of them.

While some may take exception to my classing appendiceal infections as belonging to the group classed as pelvic infections, I believe that the difficulty in a diagnosis between the two is often so great that it has to be included.

Without a doubt the most common of the above varieties of infection is the gonorrhoeal.

Previous to the aseptic era in surgery the puerperal infections were of a common occurrence, but since the use of rubber gloves, the number of cases of puerperal infection has been greatly diminished; and while we have an occasional case in our hospitals, where the utmost care is taken to guard against the same, it is however true, that the greatest number are found in general practice and can almost invariably be classed as a hand infection. The diagnosis of the puerperal infection will be considered first.

In these cases the diagnosis is usually self-evident, as we have the history of a pregnancy or an abortion. Following a normal pregancy or an abortion, where within from two to four days, the patient is taken with a chill followed by fever and general prostration, we must be fearful that there is some infection present and that it is in the pelvis, unless it can be otherwise accounted for. Such an infection may be due to the retained products of conception, or it may be the result of a general infection, traveling by way of the blood vessels and lymph channels. In the former case the diagnosis can be made in the presence of bleeding from the uterus, or by the presence of a foul vaginal discharge—for without one of the two mentioned symptoms, we can consider that the uterus is empty with no indication for disturbing the same. In the latter case the pelvic exudate, which may be confined to one side of the pelvis, or may fill the entire pelvic cavity, is soon to be made out by bimanuel examination. As the infection in these cases travels by means of the blood vessels and lymphatics—the ovary is more often infected than the tube—and the position and globular shape of the mass may aid in the diagnosis. In exceptional cases due seemingly to the virulence of the infection, no exudate occurs, but all the symptoms of a general septicaemia are pres-

ent from the first—and the case generally goes to a rapid fatal termination. I have seen one such case following a criminal abortion.

The microscope may aid us as to the organism causing the infection in these cases but that rarely influences the treatment. In estimating the seriousness of the case, more stress can be laid on the facial expression and general condition, than on the extent of the exudate present, for we know that a mass which involves the entire pelvis may all disappear under intelligent treatment, leaving no trace of the trouble, but in some cases under the most favorable treatment these infections may bcome chronic or result in the formation of pus. In puerperal infection the pain is often not so marked as in some varieties of pelvic inflammation, but generally there is marked tenderness present and the constitutional symptoms are more pronounced.

Gonorrhoeal infections, as I mentioned before, are the most common variety met with, and while a careful, complete examination is necessary, the previous history is often of great value in making the diagnosis, particularly as in regard to previous vaginal discharge and vesical irritation. Often in these cases we get a history of purulent, vaginal discharge and of frequent and painful urination, before we get any symptoms referable to the tubes. Frequently we can obtain a history of suppressed menstruation with an acute attack following. This is due to the fact that at the time of menstruation, it is easier for the infection to travel beyond the uterus, owing to the congestion of the pelvic organs. The attack in this class of cases is often ushered in with a chill and severe pain located low down in the pelvis, fever with temperature ranging from one hundred and one to one hundred and three, and great tenderness across the lower abdomen. It is rare that both sides are affected simultaneously. In such a case a careful, complete examination is necessary for a diagnosis to be made and often after careful inspection and examination of the vagina, the diagnosis can be made with reasonable certainty without a bimanual examination. In these cases we are apt to find a purulent vaginal discharge, redness about the vulva and cervix, also about the openings of the vaginal glands and a purulent secretion may at times be expresesd by pressure—this is often true where skene's ducts are pressed up against the pubic arch. Added to these findings, the presence of a palpable tumor in the region of the tube or ovary, the diagnosis is practically positive. In acute vaginal infection, the microscopic examination of the secretions will often disclose the gonococcus, but after the discharge has been present for some time, the microscope cannot be relied upon for the diagnosis.

In some cases of gonorrhoeal infection in young married women we have none of the vaginal symptoms and no history of previous infection, particularly if the symptoms follow menstruation soon after marriage. Here the diagnosis is often established by interviewing the husband and finding that a few months previous to marriage he had suffered from a urethritis which had been pronounced cured.

In cases of tubal infection which have gone on to the formation of a pelvic abscess, the previous history and findings will generally clear up the diagnosis.

In some cases of acute pelvic inflammation, it is often a difficult matter to decide whether we have to do with a tubal condition or with an appendix, but with the findings noted above and a history of a previous vaginal discharge and vesical irritation, the diagnosis can usually be made, as these two symptoms are generally present in pel-

vic infection before pain in complained of.

According to H. A. Kelly, the principal diagnostic points between an acute appendicitis and acute salpingitis, are the following: (1) in appendiceal trouble the resistance is usually situated higher up and extends from the posterior border of the right broad ligament to the iliac fossa. In inflammatory diseases the tumor is found by bimanual examination, (2) abdominal rigidity is the principal diagnostic sign, if it is absent, appendicitis can be excluded with tolerable certainty, (3) as noted above, vaginal discharge and vesical irritation are present before pain is complained of in most cases of tubal infection, (4) the onset of pain in appendicitis is paroxymal in character and in pelvic inflammation it is more steady and less intense, (5) the presence of gastric symptoms before the attack is often to be obtained in acute appendiceal trouble, (6) in young girls where infection can be excluded the diagnosis generally lies between appendicitis and tubercular disease of the pelvic organs. In cases where there is evidence of a general peritonitis, the differtial diagnosis is often impossible without an operation.

The diagnosis of a tubercular infection of the pelvic organs is a difficult matter. Many authors claim that we do not find a primary infection but that it is always secondary to a tubercular process elsewhere in the body. The main points in confirming such a diagnosis are (1) the family history, (2) the presence of other tubercular fossi in the body, (3) tuberculosis in the husband, and (4) the slow development of the trouble. There is nothing characteristic in the symptoms and the physical signs are only important when they are confirmed by the presence of the process in other parts of the body. Here the microscope comes into play and at times the diagnosis may be made from the scraping of the uterus. The tuberculin test may be made from the scraping of the uterus. The tuberculin test may in some cases be of help in clearing up the diagnosis. When all other means fail, the positive diagnosis is not made until the case comes to the operating table.

Tubal pregnancy before rupture, cannot be classified as a pelvic infection, but after rupture or a tubal abortion, the blood being poured into the peritoneal cavity sets up an irritation, causing pain, adhesions form and the general rule is that infection in such a case is due to the "colon bacillus" migrating through the bowel wall. We get the history of suppressed menses for a month or two, followed generally by a slight bloody vaginal discharge and this slight bloody discharge is the symptom that generally brings the patient to her physician and which enables him to make a diagnosis of tubal gestation before rupture. The sudden acute pain coming on after the above symptoms, usually confirms the diagnosis. When we have a tubal abortion, the pain is not so acute as when a rupture takes place. The abortion may be complete at once or the tube may continue to discharge blood into the peritoneal cavity at intervals. Pelvic abscesses resulting from a ruptured tube or tubal abortion may be diagnosed from those resulting from a salpingitis or appendicitis, but it is a difficult matter unless we can get a good history of the case. The diagnosis as to the cause of a pelvic abscess is not of much importance as the treatment is the same whatever the cause.

For the diagnosis of an ovarian abscess, it is important that we have a careful, complete history, for they are generally the sequelae of a puerperal infection, a gonorrhoeal infection, infection of the dermoid cyst, or infection of an ovarian cyst whose pedicle has become twisted and consequently

the symptomatology, accompanying a history of the above mentioned conditions, generally gives us the key to the correct diagnosis.

OPHTHALMOLOGY and OTO-LARYNGOLOGY

Conducted by
J. P. THORNE, M. D.,
Janesville, Wis.

ECLIPSE BLINDNESS.

This is a condition which occasionally every practitioner meets. Dr. E. A. Davis writes as follows regarding it, in the Post Graduate.

This is brought about by individuals looking at eclipses of the sun with the eyes insufficiently protected. It results in a central scotoma, partial or complete, according to the length of the time the eyes are exposed. In those cases which recover the scotoma is termed negative, and no traces of injury are left in the retina, but where the scotoma persists it is designated positive, and may result in structural changes in the macular region, edema with pigmentary changes and death of the nerve elements. The vision in such cases remains permanently impaired.

The ultra-violet or chemical rays are supposed to be one cause of the changes in the retina, and not the heat rays as the aqueous humor and watery elements of the eye protect the retina from the heat rays. Light reflected from the sea, sandy plains, especially in the tropics, may cause an affection of the eyes accompanied by night blindness. It occurs oftenest in poorly nourished persons. There are no ophthalmoscopic changes to be seen in the retina, and recovery takes place when the eyes are properly shielded and nourishing food is given.

The trouble is supposed to be due to exhaustion of the retinal purple, which, under such circumstances, is slow to reform. Woodruff, in speaking of such cases, says: "We have a disease in the tropics similar to snow blindness, but it is mild, as we never have the great radiance from the ground such as we receive from the snow. We also have an affection similar to vernal conjunctivitis, which, of course, is merely a mild form of what, in winter, we call snow blindness. In both extremes of temperature, then, either the arctic cold, or the tropic heat, it is due to the light and we can have every conceivable grade of the affection, from simple conjunctivitis to paresis of the optic nerve and retina (night blindness) or paralysis and atrophy with permanent blindness."

Erythropsia or red vision is another one of the affections of the eye produced by exposure of the eyes to bright light. It occurs most commonly in those who have had the crystalline lens removed; but it may affect individuals who have had the pupils dilated. It is manifested most markedly when passing from a bright place into a darkened room, where every object has a reddish appearance. Just how this condition is brought about it not clear; but the exciting cause, as shown by Schanz and Stockhausen, is most likely the ultra-violet rays. Euphos, amber and smoked glasses are the best protectives against it.

SEX AND SMELL.

Those who have had an extensive experience in nasal surgery are well aware of the fact that there is some connection between the nose and the genital organs. However, the matter has never been studied much. In view of the wholesale extirpation of the turbinates now so commonly practiced a study of this subject might be of interest. The American Practitioner abstracts an article on this subject from the British Weekly Medical Press and Circular as follows:

What the connection between sex and smell is we do not know. The genital caproic secretions are coupled with cheese, an article of diet taboo to the adolescent in France on the plea that it gives one ideas. Koblauch and Roeder, in Germany, have removed the olfactory organs of immature female animals. When the severity of the operation did not disturb the course of the experiment it was found that turbinate loss arrested in a marked degree the developmnt of ovaries, uterus and vagina, especially the horns of the uterus. Sexual desire was also diminished. These are additions to well known facts which must still wait for the mechanism of the relation to be established. Work on this class of observations may establish some very interesting details of our racial history.

EYE TROUBLES FROM MOTION PICTURE SHOWS.

Dr. G. M. Gould, in the Journal A. M. A. calls attention to the frequent ocular disturbances occurring in patrons of moving-picture shows. They have been so frequent in his experience that he now maks a routine inquiry in regard to attendance at these shows. The symptoms do not differ essentially from those caused by eye-strain of any kind. The most common, of course, is headache or migraine in some one of its forms. Perhaps the other most frequent symptoms are ocular and cerebral weariness; the patient who has had his ametropia corrected is liable to think that his glasses are again at fault. With uncorrected ametropia the symptoms are even more prominent and frequent. The major pathogenic faults of the cinematograph are the shakiness or tremulous movement of the pictures, the lack of swiftness and accuracy of the sequence and superposition of the pictures, the conflict of locations commanding the attention of the eyes and the generally defective illumination. The average rate of exposure of images is usually uniform at about sixteen per second, but the movements as represented are often quickened or slowed without any corresponding rapidity of the movement of the film, thus producing exhaustion of the eye. Better illumination must be demanded. While improvement can probably be obtained in some of these points, Gould thinks it doubtful if singly or collectively they can be entirely avoided. When we consider the investment in the business and its popularity it will be seen that the consequent eye-strain injuries and suffering will be enormous, and there is little likelihood, he says, of their exaggeration by hygienists and physicians.

Eye troubles, stammering and other derangements among schildren were attributed in part to motion pictures by Twin City school officials at a conference last week of the Minneapolis (Minn.) Women's Welfare League and other similar organizations. A bill to establish State censorship of motion picture films and to prohibit public "barkers" and posters is proposed for early introduction in the State legislature.

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A mixture of equal parts of Balsamum Peruvianum and ol. ricini makes an excellent application in a large variety of wounds, sores and ulcers.

DEPT. OF SURGERY

By Hugh N. MacKechnie, A. B., M. D C. M., 7 W. Madison St., Chicago.

HALLUX VALGUS.

Hallux Valgus is a deformity of the great toe in which the phalanges are out of alignment, being pressed against the other toes, and metatarso phalangeal joint being more prominent than normal. Frequently there are complicating conditions as hammer-toe or exostoses on the prominent head of the metatarsus, or an enlarged bursa which sometimes suppurates.

The causative factor is primarily formed, pointed or short toes. The pressure on the phalagnes both lateral and from the end causes a commencing displacement lateralward of them, from the head of the first metatarsus. When this is started the deformity tends to persist and grow worse by the action of the flexors, extensors and interosseus muscles.

The adductor is not strong enough to overcome this action and the capsule stretches permitting a still greater freedom for deformity. As the phalanges are displaced the distal end of the metatarsus is pushed out of place.

This makes a prominence against which the shoe continually presses and on which an inflammatory process develops, the prominence is increased, and the disability grows.

When a bruise forms it is readily inflamed from cold or pressure and an auto-infection with abscess formation occurs. This inflammatory process again tends to thicken the tissues and increase the pain and consequent disability of the foot.

The degree of deformity and the particular factor causing it vary in different cases. At times the angle is as much as 60 degrees with but slight inflammatory product; again there is a marked bony deposit and but little angular displacement; or again both conditions may combine with a bruise to make the deformity very marked. It is important that a diagnosis include both the presence of Hallux Valgus and the factors that enter into the formation of it. The skiagram is a most important aid to this end. I like two pictures—one dorso ventral and one lateral—the former being the more important.

The treatment is at all times surgical but not always operative. In the early inflammatory stages where pus is not present the part should be painted broadly night and morning with the following solution: Tr. Cannabis Indica ii cc. Tr. Iodi iv cc; Collodion Flex. xv cc. This will markedly relieve the pain and decrease the inflammation.

The foot must have complete rest and should be elevated. Ichthyol or in some cases hot compresses check the inflammation and should be freely and persistently used. Internally Vini Colchici or other rheumatic medicine especially the salines are of much benefit.

Should suppuration occur the abscess should be opened as soon as fluctuation is found. It is not wise to proceed further at this period till the infection has subsided and the discharge is sterile. If the shoe is pressing firmly on the part the pressure must be relieved by the use of proper fitting large shoes and for a time a pad surrounding the prominence. There are a number of appliances for the correction of the valgus but they are so difficult to wear, and the necessity of prolonged use of them makes them of but slight real value.

When all palliative measures have failed to produce more than palliation, when properly fitting shoes have failed to improve the condition, and when all applicances fail to correct the deformity and in spite of all measures

this and the pathology persist more medical means must be resorted to. What this shall be and to what extent we shall go must be carefully considered. There should be sufficient done to relieve the pressure and to correct the deformity but great care must be exercised in approaching the joint that it be not destroyed, or if that be found necessary, a new joint that will be useful must be made. It will not do to decrease the value of the foot by producing an ankylosis with a stiff toe, or on the other hand by leaving a loose or flail joint to weaken the arch of the foot. After reducing the inflammation by palliative means as much as possiole the foot is prepared for operation. General anesthesia is preferable because of the bone work. An incision is made on the dorsum joint medialward and parallel to the exterior tendon.

The incision is extended down to the bone. If a bursa is present it should be dissected from the flap which is raised from the side of the joint. If this leads down to the sheath of the flexor tendons care must be had to close this opening that the fluid will not persist in leaking out. The bone must now be attacked and the necessary work done on it. If there is little or no displacement and only exostoses developed, these may be chiseled without complete destruction of the joint and if care is exercised in the work and in the toilet of the joint later on no joint disability need occur. If on the other hand there is marked deformity chiefly due to the displacement of the phalanges and the metatarsus it will be found necessary to remove a portion of the metatarsus. This may be done by taking a mid-portion of the metatarsus and not disturbing the joint or by removing the head of the metatarsus.

The former is theoretically the proper method but the latter is better because although the joint is disturbed we can make a new serviceable one and we do not have to give the patient the prolonged rest necessary for bony union. The capsule is opened, the periosteum raised and the head of the metatarsus is delivered and severed with forceps or wire saw. A sufficient amount must be removed to permit of an easy replacement in alignment of the metatarsus and the phalanges without tension on the muscles. The periosteum is replaced and if it is not sufficient to cover the end of the bone a piece of muscle is turned over and sewed in place. A bed will have to be made in the interosseous muscle to permit of proper replacement of the bone. The flap is now replaced and sutured. No drainage is inserted. A small pad of gauze is placed over the metatarsus. A second pad is placed between the great and second toes sufficiently large to place the former in alignment. A 5% lysol dressing is applied broadly and a light plaster of Paris cast is put on. The first dressing is done eight or ten days later unless sepsis or signs of pressure or necrosis demand it earlier.

The sutures are removed and the dressings reapplied without the cast. At the end of two weeks passive motion is commenced and the patient is allowed to gradually put this weight on the foot. Care must be had that pressure is not allowed on the wound for a month. The firmness of the shoe is very liable to produce a necrosis and liquefaction of the young tissue with opening of the wound and drainage. The patient should for several months wear a specially made large shoe with a straight internal edge to keep pressure off the wound and the toe. It is also advisable to wear an instep support to relieve any undue pressure from the sole.

These cases under surgical treatment all do well providing the patient can give a sufficient time for convalescence and can give the foot a reasonable care

and protection from injury following operation. The great relief from the constant pain and the disability due to the deformity is the patient's reward for the operation and their gratitude for relief is most pronounced.

MISCELLANEOUS

A DOCTOR'S FIRST IMPRESSIONS OF MEDICAL WORK IN KOREA. ITS NEEDS AND ITS OPPORTUNITIES.

By Dr. Marie Stewart, East Gate, Seoul, Korea.

Physicians are individuals who should be slow to judge, accurate in diagnosis, and quick to act when the point of decision is reached.

We do not like to deal with impressions. Medicine has become such an exact science and the training so severe that nothing less than facts and statements that can be proven are of value to us along any line of thought. Therefore, at this time, impressions should be nothing but hallucinations, delusions the sane physician never dares to juggle with.

The needs: What Korea needs is the same that the whole world needs, educated, trained Christian physicians. Physicians with a love for their work and a greater love for humanity. With a sympathy that is felt by the sufferer. The touch that is real. This does not have to be expressed in large hospitals that take the time and strength of the physician to build, but in doing every day the work that lies nearest. And this today, for that is promised us.

And it seems there must of necessity be the need of medical teachers to instruct these people that white souls must have clean bodies. By unclean is not meant the accumulations of the day's toil—but the filth that is the result of a life of sin, and ignorance of the transmision of disease, the results of this sin.

That a work or any department of a work should possess the highest degree of prosperity and efficiency there must be harmony among the workers. In medical work above all others there is need for forbearance with each other. The physician understands better than anyone else how to cope with the idiosyncracies of his companions. If he fails to understand—his sin is greater than the one who does not know.

Let us pray for harmony and understanding between the physicians in Korea that there might be a strong, steady pull altogether for a larger work for the Master.

Opportunities: Any heathen country is but another name for opportunity for God's children. As Christian physicians, whether in western or eastern lands it is our mission to love, to bind, to heal, to teach and to direct. And our opportunities for fulfilling this mision depends on us alone. If our love is strong enough and if our hands have sufficient skill and God has bestowed upon us that indescribable power to heal that is given to every real physician, then let us pray that we may not lose sight of our opportunities for they are here. If we have the tact to deduct the best from this people of Korea and the subtle ability to direct this best for their infinite good, the opportunity is most assuredly ours.

Then from a selfish view point there is an almost enviable chance for growth. The other day I saw a beautiful Korean tree. It stood all alone. It was symmetrical in form, wide spreading of limbs and strong of trunk. Every year the rains make it cleaner, and as it stood so all alone and unpro-

tected, every typhoon that it withstood made it stronger. Every winter must have added charm to its personality. How symbolical of the missionary and the privilege that is hers to grow strong and true. Bathed in God's love, so often standing alone save with her Savior, she must from sheer necessity be able to withstand the typhoon of difficulties and temptations that are about her. What opportunities to grow in strength and grace and charm.

Are we joining hands with Jesus
In this great work of his?
Are we doing all today
That in our power lies?
Is there not in the veiled distance
Some peak we thought to climb,
The scaling for our glory
And not the One Sublime?
Do we ever have before us
The mission of our Lord,
Guarding well our deeds and thoughts
And every living word?

Read at a Korean M. E. Conference.

MORE PRACTICAL POINTS IN OBSTETRICS

By J. P. Brandon, M. D., Essex, Mo.

Having read the very interesting article on Obstetrics in the December issue of the Medical Recorder by Dr. W. T. Marrs, of Peoria, Ill., I must add a word of congratulation as I enjoyed his remarks very much indeed. We, as practitioners, should give more attention to the minor things in obstetrical practice which are so often neglected.

A few words regarding the use of ergot in obstetrics I heartily agree with Dr. Marrs, the statement about the use and abuse of ergot, and as I understand the position he takes with its practical value and I believe the majority of practitioners use it even if they never mention it, as it is considered bad practice, and I believe if it is used indiscriminately it is bad, but where it is indicated and properly used it is of great value,. However, I don't use it as much as I have in years gone by for the reason I use a preparation I consider far superior to ergot, and when I prescribe ergot for the stimulating effect on the uterine contractions I always give it in small doses and so far have not noticed any bad results from its use, and feel that I have obtained some very happy results from same.

I want to suggest a remedy that no doubt many of the readers of the Recorder are familiar with and if there is any that are not in the habit of using this preparation, I would ask you to give this a trial. It is "Pituitrin," put up for the profession by Parke Davis & Co. They put this up in small glass ampoules which makes it very convenient to carry in your obstetrical case and it is administered with the ordinary hypodermic syringe and it is as far ahead of ergot as morphine is of aceamia for pain.

It is the best stimulant I have ever used for slow tardy labor pains. I have used this preparation for some time and have my first time to be over two hours from time of administering the hypodermic of Pituitrian till labor was completed. This may look too good to be true but nevertheless it is a fact. I will admit there is nothing that is more nerve wrecking than to go see a case in labor and stay there from ten to twenty-four hours, and maybe then nothing doing but labor will be in progress very slowly. Sometimes the doctor wishes he had never seen a medical school. I believe I will be safe in saying, that there is not a reader of this article but what will say he has been so disgusted with some obstetrical cases that he wished he was everything else but a doctor.

Now a few words about the use of Pituitrin. In my limited experience of the past twelve years of general practice I have of recent months been using the above prepara-

tion and to my happy surprise I found it a very useful remedy to bring on good strong pains that we all like to see when we attend a case. We like to see them come on like we were going to get through some time, so now when I am called in to see a patient that is confined I of course make the usual vaginal examination, and if I find her in labor, I at once administer the Pituitrin with my hypodermic and at the same time I most always have the bystanders give the patient a capsule I carry in my case filled with about 10 grs. Quinine Sulph. Strychnine 1-60 gr. Powd. Capsic. ¼ gr. and within a few minutes from the time I give the Pituitrin you will notice the pains coming on very rapidly and strong and labor is usually completed within 45 minutes to one hour and a half.

I find the folowing articles indispensabel for the obstetrical bag: Pituitrin ampoules; Elliott's long or short obstetrical forceps; one small bottle of Ethereal soap; one small jar of adrenalin tape or gauze for packing uterus in hemorrhage; one jar of plain sterilized gauze for dressing the cord; one bottle of carbolized vaseline for vaginal examination; one bottle of Fld. ext. ergot, S. & D.; one bottle of chloroform Squibbs; one vial of carbolic acid; one good Kelley pad; fountain syringe & placenta forceps. set of Curetts; one bunch or bottle of Sterile Ubilical tape or cords; vial of ergotine tablets; one vial of veratrum viride Norwoods for hypo. use; capsules of quinine capsicum and little strychnine; nail brush and one vial of perchloride iron.

The above list is all I carry in my obstetrical bag and I feel prepared to meet most any ordinary complication that might come up with the above. I always have my hypodermic case well filled with the various preparations for hypo. medications. In conclusion I will say I notice that Dr. Marrs is one of the old P. & S. boys. I am too and would be glad to know more of you, doctor.

THE EARLY DIAGNOSIS OF PULMONARY TUBERCULOSIS.

By W. A. Gekler, M. D., Rockville, Ind.

(Continued from Page 432 December Recorder)

It is often claimed that the pleximeter finger can feel a change in the resistance of the parts percussed, the so-called touch percussion of Ebstein. This, I believe, is more subjective with the examiner than actual fact One has only to stop up his ears with a little wax and shut his eyes while percussing to discover that only the extreme differences such as will be found between the two sides of the chest, when there is a large pleuritic exudate on one side, can really be felt.

Of the "light touch palpitation" describel by Pottenger I can say nothing since I have had no success whatever with it. I believe again that this is a thing too liable to subjective influence on the part of the examiner to be of any value, except in the hands of a very few.

Ordinary carefully carried out percussion is really the only way to outline a change in resonance. I have dwelt at length on this point because I believe that this is one of the methods of physical examination at which it is most difficult to acquire skill.

In the very early lesions there is often little change in the breath sounds and when the lesion is close to the hilus the nearness of the large bronchus makes it extremely difficult to detect changes when they exist. The presence of rales where an extensive bronchitis can be ruled out is an almost certain indication of the collateral inflammation which always exists around active foci however small they may be. It is generally accepted that slight changes in

the breath sounds, either decreased or prolonged expiration coupled with the finding of small dry rales, ordinarily indicate a tuberculous lesion. Often when rales cannot be brought out on deep breathing a slight cough followed by a deep breath will show them.

In small sized lesions an increase in the vocal fremitus may not be found. On ausculation, the transmission of the whispered voice is greatly increased where even small infiltrations exist. This is also a very good method for outlining the boundaries of cavities.

The retraction of the supraclavicular and infraclavicuar spaces does not occur until some degree of formation of scar tissue that is healing has taken place. The same can be said for impairment of mobility on respiration and retraction of the ribs. Baccelli described a condition which is fairly frequent with beginning acute lesions. This is decreased mobility of the scapula on the affected side on deep respiration.

One sign not often mentioned in text-books is tenderness to pressure of the thorax which covers the lesion itself. This is present in about 80 per cent. of the cases especially where the disease is acute. Any acute exacerbation of the disease and also a constitutional tuberculin reaction causes an increase in this tenderness. Patients will often complain of rheumatic pains in the shoulder and scapular muscles which are especially noticeable preceding any marked barometric changes.

One very reliable indication of tuberculosis is the afternoon or evening rise of temperature. This is an almost invariable occurrence where there is any active trouble. Occasionally the patients will show a rise in temperature in the mornings followed by a drop to normal in the afternoons, the so-called reversed curve. Ordinarily measurement of the morning or early afternoon temperature s worthless for diagnosis. By measuring at 4, 6 and 8 o'clock in the evenings, any fever can usually be detected. The patient should as a rule, hold a thermometer in his mouth at least five minutes. Some tuberculous individuals' temperatures register very slowly. Often with this rise in temperature one can notice a flushing of the cheeks, and especially the cheek on the same side as the lesion.

It is a mistake to wait until the microscopic examination of the sputum demonstrates the presence of the bacilli before making a diagnosis. Very often in the beginning of the disease bacilli will not be found in spite of the fact that rales may be heard on examination. As mentioned above, the collateral inflammation around active foci can cause rales long before the bacilli can be found. By waiting until the microscopic examination makes the diagnosis absolutely certain, very valuable time may be lost, and the prognosis is much worse.

One of the most important means of diagnosis we have at our command is the x-ray. I consider this just as important as the physical examination and an absolute necessity where any degree of accuracy is to be obtained in our diagnosis. Any infiltration or scar tissue tends to retard the rays as they pass through the body, regardless of whether the lesion is near the surface or deep-seated. By this method all the infiltrations are always shown on the plate or fluorescent screen. It is impossible here to go into any detailed discussion of the x-ray technic. I mention this, however, because it is an invaluable aid, and in conjunction with the physical examination ought to be employed very much more than it is.

This brings us to the discussion of the tuberculin as a diagnosic agent. As I remarked above, practically 90 per cent. of our population are tuberculous before the eighteenth year of their lives. This hinders us from using this means of diagnosis very extensively.

In children up to the sixth or possibly eighth year it is very valuable, because then a reaction would indicate a more or less recent and probably active lesion. It will not, however, give us any clue whatever as to the location of the lesion. When the physical signs which indicate the presence of this disease are found it is useless and in some cases even dangerous to apply the subcutaneous tuberculin test.

The ophthalmic reaction is not employed so often as formerly. Occasionally severe inflammation of the conjunctivae are seen following the use of this method and it is being gradually discarded. The eye is too valuable an organ to expose to any unnecessary danger. The von Pirquet cutaneous method is very reliable and convenient in children. In adults it has the same limitations as other tuberculin tests.

There are no serological reactions which are of any value as a means of diagnosis. The agglutination reaction has not proved to be of any practical use. It is an aid in watching the effects of specific treatment but is altogether too unreliable for diagnosis. The same can be said of the precipitin reaction and the diversion of complement as used in the Wasserman test. The English physicians still place great reliance on the estimation of the opsonic index for diagnosis. If any of these tests were constant and reliable, which they are not, they are much too sensitive, and therefore are open to the same objections as the tuberculin tests.

We have then, our old and tried methods of examination as the real basis of our means of diagnosis. Percussion and ausculation skilfully and carefully carried out will except n extraordinary cases, give us sufficiently accurate results in connection with careful attention to the history of the case and the patient's statement of his own ailments. I wish, however, to lay particular stress on thoroughness and care and the skill which only comes by long and diligent practice. In addition to this, whenever it is possible, the x-ray examination should confirm or add to what has been demonstrated physically.

THE EFFECT OF EMPLOYERS' LIABILITY ACTS UPON THE MEDICAL PROFESSION.

By Wm. F. Hatch, Fort Wayne, Ind.

A number of State Legislatures, in the past few years, have placed upon the Statute books of their state an Employers' Liability or Workmens' Compensation Law, and similar laws are being considered in the Legislatures of other states at the present time.

These all aim to properly compensate the workman who is injured in the course of his employment, to eliminate the personal injury litigation incident to industrial accidents heretofore, and to define the liability of the employer for injuries to his employees.

In those states where laws of this charcter have been in effect for any length of time, the results are already apparent. While it cannot be said that the matter has been arranged to the satisfaction of all concerned, the main object has been accomplished, in a large measure, namely, the decrease in the number of damage suits filed by injured employees.

It is within the bounds of possibility to believe that this economic problem is nearing solution.

However, the solution of this problem brings up other questions which have to be dealt with, and creates conditions which are not favorable to a certain class of people, namely, the medical profession, and one situation in particular presents a very serious aspect, which should be considred carefully by every practitioner.

Heretofore, the prosecution of personal injury suits has been fostered and

monopolized by a class of attorneys that occupy the same position in their profession that the "quack" or "charlatan" does among the medical practitioners of the country. With utter disregard of the merits of any case, they have bullied, browbeaten or bluffed employers into making settlements in trumped-up suits, or failing in this, have succeeded in securing a "sympathy" verdict by means of a dramatic exhibition in court that would do credit to a thespian.

With their principal means of livelihold taken away from them, they have naturally looked around for uses for their talents, and in a number of cases, the medical profession has been singled out as the most susceptible source of ill-gotten gain. The "shyster" knows that the average practitioner fears the annoyance and publicity of a malpractice suit, and will sometimes pay a small amount in settlement, rather than have the suit filed, which would make it necessary for him to leave his practice in order to defend his reputation in court.

Furthermore, the average "shyster" knows that insurance companies issue policies indemnifying practitioners against judgments in malpractice suits. His experience in personal injury cases has taught him that insurance companies generally lean toward a compromise. And he rightly assumes that they pursue the same course in settling claims arising uder Physicians Liability Policies.

All insurance policies, but one, have provisions which state that no case shall be compromised without the consent of the assured, but these same poliries contain other provisions which vitiate the force of the "no-compromise" clause, making it unnecessary for the company to secure the consent of the assured. The one policy which does not have these provisions is silent on the subject of compromise and while aparently providing proper defense, still gives the company the right to compromise.

Anyone who has observed the manner in which insurance companies "defend (?)" physicians knows that the record of every insurance company is replete with compromises and settlements. And it is only natural to assume that where a "shyster" lawyer or disgruntled patient has been successful in mulcting a physician of a few hundred dollars, or has forced a compromise from some insurance company, that he spreads the good news among others of his ilk and they attempt to secure some of this "easy money."

When malpractice actions first became frequent, ten or twelve years ago, casualty companies commenced to issue Physicians Liability Policies. Some have discontinued this line of insurance owing to the fact that the compromise feature met with so much disfavor among the practitioners. They frankly acknowledged that the business could not, in their estimation, be profitably written unless they reserved the right to compromise. However, some companies, while recognizing this condition have clothed their policy with ambiguous wording that enables them to compromise without question and gives the practitioner no recourse.

It is not strange, therefore, that malpractice litigation has increased over 1000% in the last ten years. Nowadays, among a certain class of people (principally foreigners or the poor and unintelligent) a physician must renew life, and control the vital principles of assimilation, absorption and secretion, reproduction and sensation. Otherwise, negligency, incompetency, and unskillfullness is alleged, and a civil mapractice suit is threatened.

The plaintiff usually publicly boasts that he is "goin' to stick de doctor," and unless the plaintiff or his partner in plunder (the shyster lawyer) are

compelled to drop the case, or defeated after a trial of the case (through the court of last resort, if necessary) the material effect on his reputation will be ten times the amount it would cost to fight the case. Under such conditions, it is easy to appreciate the ineffectiveness of an insurance policy. Concerned only as far as their liability is concerned, every effort of the insurance company is directed toward getting the case settled as cheaply as possible. If there is any time when parsimony is reprehensible, it is when a practitioner is called upon to defend his professional reputation.

The filing of a suit alleging malpractice against any reputable practitioner calls for a close co-operation on the part of his professional brethren to defeat the vicious end of the maligner and his attorney. It also calls for a vigourous and uncompromisng fight on the part of the defendant. He should prepare to stay with the case until he is vindicated in the eyes of the community or has exhausted every legal remedy.

Fortunately, a number of malpractice suits have been taken to the higher courts in the past few years and decisions secured on questions of a physican's responsibility to his patient that definitely define the liability of the medical practitioner. These decisions are of immense value to the profession generally and no verdict of a trial court if adverse to the physician, should be accepted as final, but the case should be appealed to the higher courts, where the verdict is bound to be set aside, unless the physician was flagrantly negligent or careless in his administration of treatment.

It is notw ithin the bounds of probability to expect that malpractice litigation will ever become extinct until the millenium arrives, but the profession generally can help to reduce the number of suits filed if each practitioner sued will provide a fight to the limit in every case. An elimination of compromises and the refusal to accept "sympathy" verdicts as final will do much toward reducing the number of suits filed.

SPIANAL ANALGESIA.

By William Seaman Bainbridge, Sc.D., M. D., New York.

During the Clinical Congress of Surgeons of North America held in New York City in November, 1912, a patient on my service at the New York Polyclinic Hospital, died after a lumbar subarachnoid injection of stovain, preparatory to the performance of an operation for hernia.

History—P. H., Irish, male, age given as 50 years, probably 60 or more; chronic alcoholic. Came to my clinic at the New York Polyclinic Medical Schol and Hospital, October 18, 1912, seeking relief for a condition which proved, upon examination, to be right inguinal hernia, at times irreducible, and causing great suffering. The man gave a history of having felt a sharp, tearing pain in the right groin, while operating a taxicab, about three months previous to coming to the clinic. Since that time he had been to several dispensaries in a vain search for relief. He had used a truss without success. Failing to obtain relief by other measures, he wished to be operated upon at once.

From the general physical examination the patient was found to be in a very bad condition, as the result of the prolonged excessive use of alcoholic stimulants. The following conditions were present: general atheroma of the arteries; renal insufficiency, due to chronic Bright's disease; marked enlargement of the liver; myocarditis, with systolic murmur at the base; emphysema; rales over the base of both lungs. A history of chronic gastritis was also elicited.

The patient's general condition was such that immediate operation was not deemed advisable. He was told, accordingly, to abstain from the use of intoxicants, and to refrain from lifting or straining; he was put upon a diet, tonics, etc., and was kept under observation for about three weeks. Despite the fact that only slight improvement followed this regime, he insisted upon operation. He was then admitted to the hospital, on November 14, and prepared for operation the next day.

Because of the man's general condition, inhalation anesthesia was considered contraindicated. He was prepared, accordingly, for operation under spinal analgesia. Before the members of the Congress of Surgeons present, I injected into the cauda equina twenty-six minims of a one per cent. solution of stovain. The patient, who presented no symptoms differing from those of the average patient during the spinal injection, was then sent to another room to be operated upon by Dr. E. M. Foote and Dr. Claude A. Frink, of my staff, while I concluded my lecture before the Congress. The man's mind was perfectly clear, his pulse was good, there was no nausea, no cyanosis, no respiratory embarassment, in fact, none of the symptoms of stovain poisoning. He suddenly turned pale, said, "I am dying," and instantly died.

The case was made a Coroner's case, and an autopsy was performed the next day, with the following findings:

Marked edema of the brain, so-called "wet brain"; myocarditis; atheroma of aorta; aortic insufficiency; emphysema of lungs; chronic interstitial nephritis. Spinal cord showed no gross lesion.

The Corner's inquest was held on December 4, 1912. The jury, after listening to the testimony of the above facts and a number of experts as to the indications of death by stovain poisoning, did not find that the man died of stovain poisoning but that death was caused by pathological conditions" as above described, and all concerned were exonerated from blame.

606 AND THE TREATMENT OF SYPHILIS.

By Dr. Edward T. Alford, Waterloo, Iowa.

Attending Surgeon to Presbyterian and St. Francis, Hospitals

Since the discovery of the spirochete pallida in 1905, and the introduction of the Wasserman reaction and 606, our conception of syphilis has undergone a remarkable change,—due to the increased and wonderful amount of work and study that these discoveries have inspired.

Previous to these discoveries, our diagnosis was never certain until the second stage appeared, and after the disappearance of the secondaries our treatment was largely governed by rule. When no secondaries appeared or when they were so slight as to be overlooked, a positive diagnosis was rarely made. Therefore, many cases of syphilis were recognized only after tertiary or para syphilitic manifestations made their appearance, and many individuals who never had the disease, received years of unnecessary anti-syphilitic treatment.

Without a doubt, a very small percentage of cases treated, were absolutely cured—the percentage of cures conservatively estimated being as low as 20 to 25%.

It is evident from the current literature that Salvarsan has not lived up to its early promises, for it does not effect a complete cure of syphilis in the sense Ehrlich anticipated, nor does it support the reports and statements made by its early enthusiastic advocates. The best evidence supporting the incompleteness of Salvarsan to effect a cure is the fact that recurrences of the disease have fre-

quently been observed after its use and that mercury is now always used in connection with it, and while it is established as a remedy of very great value in the treatment of syphilis, the necessity for energetic mercurial medication, advocated by the best authorities in connection with it and by those most enthusiastic for it, shows that the early extravagant claims made for it, and those that are still being made, do not stand up. The amount of professional and general advertising which the remedy has received in the past two years, together with the present impression made upon the lay mind by the early reports, lay the employment of Salvarsan open to questions that are yet undecided. The value of the remedy is without question. It causes syphilitic lesions to disappear with great rapidity in the majority of cases, but serious results are frequent, especially with the nervous system and fatal results are not uncommon. They are probably more frequent than the literature infers. Therfore, the routine employment of Salvarsan in the treatment of syphilis is not yet established and will not be until we are more familiar with its immediate and remote dangers and of the many contraindications of its use. The importance of the early diagnosis in a given case cannot be overlooked, and the search from the primary sore for the Spyrochetes is the most important method of diagnosis during the early stages of the disease, as in the majority of cases at this time the Wasserman test is negative and the disease still localized to the region of the primary sore. In other words, in from 50 to 60% of cases there has not been a generalized distribution of the Spyrochetes throughout the body at the time of initial lesion. With, however, a positive Wasserman reaction at this stage, a general invasion of the Spyrochetes has occurred. This happens in about 40% of cases and means a generalized syphilis, so that in from 50 to 60% of cases, a vigorous appropriate treatment at this time will limit the infection to its original site and a speedy and absolute cure can be made in a large majority of this class of cases.

It is in the early stages of the disease that its effects are most marked and that 606 is of greatest value. It is a specific Spyrochetial poison, the efficiency of which is in direct ratio to the age of the infection, and so is more efficient in the beginning of the disease than mercury. Given early is the primary stage, it is possible to prevent the appearance of the secondary symptoms and a positive Wasserman, or in the event of its being already positive, to change it to a negative. Several writers have reported series of abortive cases of primary syphilis in which, after one injection of Salvarsan and without other treatment, the majority of such cases showed negative Wasserman reactions six months after. Cases are also reported that favor a definite cure, in that they were later reinfected, developing fresh chancres several months after treatment. In one case of primary syphilis the patient infected his wife before submitting to treatment and after one injection of 606, which his wife failed to receive, he returned ten months later with a fresh chancre.

Large indurated chancres where the blood supply is poor and where the vessels are thrombosed so that Salvarsan cannot penetrate, should be exercised, if possible, because though the chancre may rapidly heal over the Sphyrochetes may still persist in the deeper layers and the efficiency of the treatment rendered null.

Excision of the primary sore is advocated by many, as a routine measure, being claimed that it rids the patient of the primary focus of Spyrochetes. This it is claimed in connection with the intravenous injection of Salvarsan re-

peated two or three times, at weekly intervals, and the vigorous use of mercury local and general, aborts the disease in a large proportion of cases.

This procedure would be of great routine value were the Spyrochetes limited to the initial lesion, and would be a rational procedure in every case, were it not for the improbability that the Spyrochetes are so limited, they having spread, without doubt, to the regional lymphatics and blood stream, making the procedure of value only in the hard indurated variety and where the chancre is easily accessible as on the foreskin where its removal can do no harm.

During the second period of the disease, with a strong Wasserman reaction present, the disease is more difficult to eradicate, and the efficiency of Salvarsan not so pronounced. Its effect upon the secondaries is, however, very rapid, causing them to disappear quicker than mercury and rendering the patient noninfectious in a few days, thus affording greater protection to those who have not the disease, than is the case where mercury is used alone.

Generally speaking, as soon as the diagnosis of syphilis is made an intravenous injection of 606 is immediately advised. This should be repeated on the eighth day, again one week later, and another every three weeks until the Wassermann reaction is negative, in three specimens of blood taken from five to eighten days, after the last injection.

Mercury should, in every case, be commenced the day the patient is first seen, and continued as long as the Wasserman reaction remains positive, after which several courses of mercury should be given as there is still a possibility that the above course may not have been sufficient to effect an absolute cure. Another injection and Wasserman reaction should be made a year after the treatment is completed, testing the blood at three different periods and only certifying a cure, if all are negative. In this manner many cases of complete cures have been reported within periods of from six to twelve months.

As the disease advances, however, the time required for complete cure grows progressively longer, and ten or twelve injections together with several courses of mercurial inunctions may be required before a negative Wasserman is obtained or until the disease is completely cured

That Salvarsan has a much more rapid action on the Spyrochetes than mercury is seen in this stage of the disease with pronounced mucous lesions and in those cases of malignant syphilis which under the old mercurial treatment were so slow in healing, or so hopelessly unaffected by treatment, under its use clear up in a few weeks and the patient is restored to apparent health.

The primary macular and papular syphilid and the mucous membrane papules and condylomata disappear with amazing rapidity after the injection of 606. The other secondaries disappear more gradually. In the tertiary stage, cutaneous gumma heal very rapidly under 606, as well as the gumatous ulcerations of the mucous membrane. In gummatous ulcerations involving the throat and those existing near joints, 606 is of special use as it relieves the pains of these conditions in a few hours, and promotes healing much more rapidly than mercury. In general, however, in the destructive lesions of late syphilis and in syphilitic and para syphilitic nervous diseases, the concensus of opinion sems to be that mercury and the iodides are the remedies of the greatest value, but in those cases resistant to mercury and the iodides which persist in spite of the older treatment, in that they are unaffected by the mercury or progressively

worse. Salvarsan in many instances produces a very remarkable result, restoring many cases to apparent health that could in no other measure be reached.

Another surprising effect of 606 in the last stages of the disease is the rapid improvement in the general health observed after its use. The weakness and general malaise disappear, color returns to the face, sleep and appetite return, and the improvement in the well-being of the patient is extraordinary. In cases, however, where organic degeneration of the nervous system has taken place, no hope of restitution can be expected. Several observers, however, report improvement in cases previously treated with mercury and iodides by the use of Salvarsan, the improvement being manifest in sensation, bladder, speach, ataxia, a return to pupillary reflexes and a diminuition in the lightning pains, while on the other hand an equal number of other observers claim no improvement in this class of cases after administration of the drug.

In congenital syphilis the use of salvarsan is generally considered to be dangerous, as after its employment the destruction of the enormous number of Spyrochetes present in those cases, leads to such eliberation of endotoxins that the little patients readily succumb. To overcome this danger, the nursing mother has been treated with Salvarsan in the hope that the milk would then contain some of the antibodies elaborated in the maternal system. However, it is quite as likely that the maternal endotoxins and remedy are eliminated in the milk as the antibodies and in this manner the child receives a double dose of endotoxins, partly maternal and partly autogenous from the destruction of the Spyrochetes in the child's tissue. This method has proved dangerous and the death rate high. Salvarsan has, however, been used in the form of a neutral suspension, (Wechselmanns), injected intramusclearly in the gluteal regions with a profound and rapid result in the early manifestations of hereditary syphilis, but its use in the late manifestations of congenital syphilis has been less marked and apparently inferior to the ordinary mercurial treatment.

(To be Continued.)

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MILK.

The fundamental reason that impure milk is sold in American cities is an economic reason and not a sanitary reason. Under the present conditions of production and marketing, most dairy farmers and milk dealers simply cannot afford to make and sell milk that is safe to drink.

"I make these statements upon the authority of a searching investigation of the milk industry in and about the typical American city of Rochester, N. Y.," says Dr. John R. Williams in the World's Work for February.

"The information that was gathered in my investigations was tabulated and was interpreted in the light of personal observations. Two inevitable conclusions arose clearly from the mass of detail:

1. That the fundamental cause of impure milk on the farms is the uneconomic method of production.

"This cause is apparent typically in two classes of producers:

(a) Those who conduct a dairy farm on suburban lands which are held on speculation for the rise in price that will come from the certain growth of the city toward them, and which are already so valuable that the dairymen cannot earn interest on their value by legitimate methods of producing milk; and

(b) Those who through ignorance do not manage their farms skilfully enough in the feeding and care of their

cows to make the business profitable enough to be able to afford the proper care in the handling of the milk.

2. That the fundamental cause of impure milk in the city is the uneconomic method of distribution.

"The most striking evidence of this cause is that altogether too many dealers are engaged in distributing milk, with the results that twice as much money and twice as many men and horses and wagons as are necessary are employed to perform this service. Of course, these facts mean that the dealers get less than a fair profit and cannot, therefore, be overly nice in the care of the quality of their product. And they mean, too, that the customers pay more than a fair price for milk—of an inferior grade."

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INTERNATIONAL CONGRESS ON SCHOOL HYGIENE TO MEET IN THE UNITED STATES.

The United States will be the meeting place of the Fourth International Congress on School Hygine. The preceding congresses have all been held abroad, the first at Nuremberg in 1904, the second at London, 1907, and the third at Paris, 1910. The 1913 congress will be held at Buffalo, N. Y. August 25-30, and will be presided over by Charles W. Eliot, president emeritus of Harvard University.

It is the object of the congress to bring together men and women interested in the health of school children and to assemble a scientific exhibit representative of the most notable achievements in school hygiene. It is believed that the present widespread public interest in health eductaion will make the exhibit a particularly attractive feature of the congress. Twenty-five nations have membership on the permanent international committee of the congress and it is expected that all will have delegates at Buffalo.

Mortality from tuberculosis fallen from 134 to 120 per 100,00 in 4 years.

20,798 diphtheria patients treated with antitoxin; death rate reducel from 42 to 8.48. Free antitoxin given prophylactically to 15,125 exposed cases.

Streams being freed from pollution; 21,370 private sources of pollution abated by the department; many more stopped voluntarily; 76 modern sewerage plants constructed; 236 others planned. 47 modern water filtration plants built or being erected.

Typhoid mortality reduced from 56.5 per 100,000 to 23.9; 2363 lives saved.

Mortality in state reduced from 16.5 per 1,000 to 15.3; saving in last year of 8,258 lives.

In caring for the school children five steps were taken:

Reporting communicabe disease;

Exclusion of sick and contacts;

Disinfecting homes and persons of sick and contacts;

Disinfection of schools, books, furniture, etc.;

Systematic inspection of children by physician aided by nurse.

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Heart stimulants are tolerated and required by infants and children in very much larger relative doses than by adults. In order to obtain an effect in urgent cases (pneumonia, etc.), a baby of one to two years of age should get 5-6 drops of a good tinctur of digitalis every 2-3 hours until the number of pulse beats has been satisfactorily reduced. In very urgent cases much larger doses may be administered; 15-20 drops of tincture of digitalis, repeated once or twice after a few hours may be safely given to a baby one to two years old and may prove lifesaving.

MATERNITAS

By CHARLES E. PADDOCK, M. D.,
Chicago, Ill

PREPARATIONS FOR CHILD BEARING.

Generations of indiscretions have impaired the female organism to such an extent that most women of today bear the marks of racial enfeeblement. Adult physical defects are, however, by no means all the fault of bygone ages. Perhaps even a more potent factor in their cause is the torpid indifference of many mothers toward the physical and moral welfare of their daughters when the young girl is nearing that period which means so much to her future health and to the development of her reproductive powers.

Even before puberty a girl's physical condition should be thought of in the light of its importance to her future motherhood. Although the organs of generation are the last to develop it must be remembered that these organs will be underdeveloped and unfit for reproduction if physical soundness is not maintained during childhood.

During the period of puberty the utmost care is required to prepare the girl for the heavy demands which nature will make upon her if she becomes a mother. The functions of the reproductive organs require months and sometimes years for their normal, healthy establishment. At this time the girl's future health is at stake. The modern girl too often arrives at the age of puberty unprepared, either physically or mentally, for the great changes to which her nature is to be quickly subjected, and, in consequence of her very unpreparedness a severe shock to the nervous system results.

It is to the mother that we must look for proper treatment of her daughter at this trying time. There must be confidences on this subject between them, the younger woman must be impressed with the importance of the changes coming over her and taught definitely how to care for herself. The girl should know that puberty is one of the turning points of her life and that upon her obedience to the laws of health at this time depends the physical and mental welfare of succeeding generations. The mother can give the needful advice in delicate but unmistakable language, and so place herself in a postion to be thereafter the trusted adviser in all these matters of which her larger experience should have given valuable knowledge.

Most of our mothers, unfortunately, appear to be ignorant of the necessity for a special hygiene of puberty and menstruation. This is strange in view of the fact that former ages definitely appreciated this necessity of periodical care and that even today primitive peoples scrupulously observe such care, both as a common law and as a religious rite. Huts have been found built especially for menstruating women, made so low that it is impossible to do otherwise than lie down in them.

Our best ideas of the care necessary for girls, in order that they may develop the finest physical attributes of their sex, may be summarized as follows: The general condition and ordinary functions of the body should be kept constantly up to the level of normal health. Compression by tight clothes should be prohibited. Corsets and clothing worn tightly have, in many cases, been responsible for underdeveloped breasts and nipples, with consequent future inabilty to nurse a baby.

Present-day notions of what ought to be done for the girl at her menstrual period I find usually at one or the other extreme: Either she is left free to follow her own inclinations at this period or else she is put to bed by a a solicitous mother, with the result that the girl imagines herself ill. Now the wise woman will avoid both these extremes. She will, of course, realize the

necessity for rest and care; she will insist on her daughter avoiding dancing, shopping and exposure to inclement weather; and, also, she will see the vital importance of preserving emotional calmness in her girl. This latter will have to be achieved, first, by her own example of emotional quiet and, second, by a reasonable explanation of the phenomena of menstruation.

The main point to remember is that it is the entire woman, mental and physical, who is responsible for the child which she will later bear. The correlation in harmonious action, not only of every organ of the body, but of every cell composing those organs, is a primary requisite for the production of a normal child.

PRACTICAL POINTS ABOUT PREGNANCY.

The following signs and symptoms aid the physician in diagnosing pregnancy:

(a) If a married woman in good health and in the reproductive period, after menstruating regularly, ceases to menstruate, there is a strong probability that she is pregnant.

(b) Enlargement of the breasts with tingling in them is not of itself of much value as an indication, but in connection with cessation of menstruation, may furnish valuable evidence of pregnancy.

(c) Morning sickness, with or without vomiting, often gives to the pregnant woman the first indication of her condition. It occurs in greater or less degree in at least one-half of the cases; with the other signs enumerated, it is valuable for making a diagnosis.

(d) Quickening or "feeling life," which usually occurs between the sixteenth and twentieth weeks, is a certain sign, if the woman has not misinterpreted the sensations.

(e) The discovery of the fetal heart sounds and locating of the child by the physician examining through the abdominal wall is absolute proof that the woman is pregnant.

As a rule, the cessation of menstruation in a young married woman is not due to taking cold, and should not be so considered, neither should she, with that idea in view, do anything to bring on menstruation. Under such circumstances it is always dangerous to interfere with nature.

From the view point of health, to say nothing of that of morals, artificial interruption of pregnancy by whatever means is hazardous. Hospitals are being supported by patients who have become invalids through pelvic disorders, produced by criminal miscarriages.

A woman who marries must expect to become a mother, but in the beginning of her married life she often implores her physician to free her from her maternal burden. To her, the operation seems a simple, harmless one, but to those who know, it means that the woman may be left in a condition that will prevent conception in the future, and may render her an invalid.

The habit of preventing conception during the first years of married life by means apparently not harmful to health, often leads to years of regret in later life. Barrenness in the woman is frequently due to the successful attempt made for a prolonged period to prevent conception. The reasons given for the avoidance of childbearing are usually flimsy. The justification and ennobling of wedlock is the birth of children.

As soon as possible after it is known that conception has taken place, a pelvic examination should be made by a physician. This important matter is often delayed through delicacy, but neglect of it might entail very serious results.

The first movements of the child in the womb have been likned to that of a bird fluttering in the closed hands.

This sensation frequently causes the young prgnant woman some alarm. It is about the seventeenth or eighteenth week of pregnancy that this movement is usually noticed, although it may be as early as the twelfth week, or as late as the thirtieth or later. In fact, women have been known to go the full nine months of pregnancy without being conscious of any fetal movement and finally the child be born alive.

The exact date of confinement cannot be given, as we cannot know the time of conception. We can only approximately decide upon the time that pregnancy will cease. Outside influences, such as falls or blows, often determine the date. From reckoning up large numbers of cases we know that the average termination of pregnancy is 280 days from the beginning of the last mnstruation. Another method of reckoning which is fairly accurate is to count back three months from the beginning of the last menstruation and add seven days; e. g., Mrs. X. began to menstruate the last time on September third, 1904. Counting back three months and adding seven days will make June 10th, 1905, or adding nine months and seven days will give the same result.

About ten days or two weeks before the beginning of labor the prospective mother will notice that her waist is smaller, that her clothes are looser there and that the position of the child is not so high. To this settling of the womb we give the term "lightening before labor."

Mistakes are inevitable in computing the length of pregnancy. If there were no other factor, the simple reason that the actual date of conception cannot be known, necessarily leads to error. On account of the confusion in the matter, it is sometimes said that the pregnant woman has "run over her time." From a medico - legal standpoint the subject is very interesting and various laws have been passed in different countries. In practice the physician will watch an apparently prolonged pregnancy very carefully, and when convinced of its being longer than nececssary, will take means to terminate it without harm to either mother or infant.

How sex is primarily determined is a problem as yet unsolved. The ratio of the sexes remains about the same the world over, being about 106 males to 100 females. Neither climate nor food materially alter it. There seems to be some strong probability in the theory that the determination of the sex of any given individual is dependent on the given ovum from which he or she is developed. The sex of this ovum, in turn, is probably determined long before conception, perhaps even before puberty.

The diagnosis of the sex of the child before birth is an uncertain matter. As a rule boys are larger than girls at birth, and the heart beats more slowly. Consequently, when the heart beats can be counted before birth, and are found below 140 to the minute, the child may be a boy, while if the beats are above 140 to the minute, it may be a girl. Any decision more definite than this is merely a guess.

(To be Continued.)

Little girl, you look so small,
Don't you wear no clothes at all?
Don't you wear no shimmy-shirt,
Don't you wear no petty-skirt—
Just your corset and your hose,
Are those all of your underclothes?

Little girl, when on the street
You appear to be all feet,
With your dress so very tight
You surely are an awful sight.
Nothing on to keep you warm,
Crazy just to show your form.

Little girl, you won't live long,
Just because you dress all wrong,
Can't you wear more underclothes
Than your corset and your hose?
After awhile I do believe
You will dress like Mother Eve.

—D. E. A. R., in The Outlook.

The Wisconsin
Medical Recorder

J. P. THORNE, M. D.
F. W. VAN KIRK. M. D. } EDITORS
PUBLISHED BY
WISCONSIN MEDICAL RECORDER
JANESVILLE, WIS.

SUBSCRIPTION PRICE

$1.00 per Year in Advance; Single Copies 10c in the United States and Mexico.
$1.25 per Year in Canada.
$1.50 per Year in Foreign Countries in the Postal Union.

ORIGINAL ARTICLES are solicited from our readers. We wish articles which are sent us to be contributed exclusively to this magazine. We will send the writer of any original article, if desired, twenty-five extra copies of the number containing the article. We are also willing to send copies to the professional friends of the author.

LETTERS, CASE REPORTS AND QUESTIONS are desired for our Discussion Department.

We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Reports and items of interest are gladly received

VOL. 16 JANUARY, 1913 No. 1

After fifteen months service as the Managing Editor of this journal it becomes necessary for us to give up the position. While the duties pertaining to this work have required much time and effort, which added to the requirements made of a general practitioner of medicine, made them seem burdensome at times, the pleasant acquaintances and associations; which have been formed, by correspondence and in person, with subscribers and contributors, have been so greatly appreciated that it is with regret that we surrender the editorial "quill." The professional benefit that we have derived from reading the manuscript and "proof" of the various papers published has been considerable and has been a reward of no small proportions for the time thus spent. We feel most deeply indebted to those who have helped in both these ways to maintain financially and make the journal in such great measure, as we feel they have, a help to its readers in their efforts to solve some of the serious problems that are ever confronting the faithful and conscientious physician and surgeon.

When we re-commenced editorial work after an interval of several years, following eight years of continuous service in that capacity, we felt an earnest desire to accomplish as much as we possibly could in that line.

W are now fully aware that despite the loyal and faithful support and assistance of the two classes mentioned, our subscribers and contributors, both of which are equally necessary to the success of any medical journal. That we have not achieved nearly as much as we had planned for and hoped to accomplish.

We thank both of these classes of helpers most heartily for their support and have no doubt of their continued allegiance and assistance. We know our successor to be a capable physician who will earnestly endeavor to improve the Recorder and make it still more valuable and helpful to its readtrs. May each of its succeeding years be more prosperous and successful than any of the preceding ones is our fervent wish.

Thanking the Publishers and Dr. Thorne for all of the courtesies shown to us and with our best wishes for our associate editor and all of the subscribers and contributors we are,

J. V. Stevens.

OUR NEW EDITOR.

We are pleased to announce to the readers of the Journal that our new associate editor, Dr. Frank W. Van Kirk, is one whom we feel is thoroughly competent in every way to look after the Journal's interests.

Dr. Van Kirk is a man who has had the best of opportunities both in this country and abroad to become well versed in the ways of medical men —and we feel he will be able to please our readers as to the articles which will appear this coming year.

Through the efforts of Dr. Van Kirk we have been able to enlarge our list of contributors—we know that the men who are connected with the Journal now and those who will shortly become connected with it through their writing are all prominent and active members of the profession in the different sections of the country from which they come and all stand for the "best in medicine."

NEWSPAPER INACCURACIES.

We are very glad to have an opportunity to publish in this issue of our Journal the true fact, in regard to the case of death under "Stovaine Anesthesia" which occurred in New York City before a section of "The Clinical Congress of Surgeons of North America"—and which was given such wide publicity by many of our leading newspapers —under such headings as "death under stovaine," "a case of stovaine poisoning," etc.

· The medical profession as a whole has come to place but little reliance on newspaer articles relating to medical subjects because only the sensational features are given, just enough to make good reading matter for the public, little regard is paid to the true state of affairs and many times articles are printed and given out as facts when the subject matter written about is only in the experimental stage.

The thinking members of our profesion have come to take as facts only such subject matter that is recognized as being worthy of being printed in our leading journals.

The case referred to above was given wide publicity because it was a coroner's case. Most of the laity who believe the newspapers as they do their bibles would attribute the death to the use of "Stovaine" and that alone—while the true facts of the case as presented in this review of the case (page 22 of this journal gives one an entirely new viewpoint.

For those interested in the use of Stovaine, I will refer them to a splendid article by William Seaman Bainbridge published in the Journal of the American Medical Association, Nov. 23, 1912, Vol. LIX. pp. 1855-1859.

A number of requests have come to the journal lately from its subscribers asking for articles relative to the genitourinary organs and the accessory glands and we are always glad to receive such requests for we want our subscribers pleased. Acting on this suggestion we have secured promises from a number of prominent men in the medical world to give us such articles during the coming year. One article appearing in this month's issue on "Hypertrophy of the prostate" will I am sure be of great interest to many of our readers.

An article which will begin in this month's journal, which I especially wish to call your attention to is the article on "606." I believe that at the present time there is no one subject to which the medical profession is giving as much thought as to the subject of "The Treatment of Syphilis." This article comes at an opportune time for I believe that most of us have but a hazy idea as to the merits of this much talked about remedy. We are however beginning to believe that it is not a "cure-all" as it was at first thought to be.

The above mentioned article gives us a very good idea as to its use and the class of cases to use it on, when we may

expect results. We will at all times be very glad to publish any article relative to this subject which any of our subscribers will send us. Let us bear the results of this treatment in your practice.

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The articles which will appear during this year under the heading "Maternitas" will be believe be much enjoyed by our readers. We considr ourselves fortunate in being able to publish these articles by such a well known authority as Dr. Charles E. Paddock, Professor of Obstetrics of the Chicago Post Graduate Medical College and Assistant Clinical Professor of Obstetrics of Rush Medical College. We believe that the many helpful suggestions contained in these articles will enable us all to give better advice to our patients who are asking just such plain questions as these different articles treat of. They are just the practical points that we all are glad to have at our tongues end. Let us have more such articles from our subscribers.

THE DOCTOR'S LIBRARY

International Clinics: A Quarterly of Illustrated Clinical Lectures and Especially Prepared Original Articles. Edited by H. W. Cattell, A. M., M. D. Vol. IV., Series 22, Illustrated with Plates. Pages 298, Cloth, Price $2.00. J. B. Lippincott Co., Philadelphia.

"Treatment of Exophthalmic Goitre" is a most interesting article by Dr. Albert Abrams, the apostle of "Spondylo-therapy." Regarding his treatment by concussion of the seventh cervical spine Dr. Abrams says: "I know of no method of treatment which is more rapid in its results than the method which has been cited for the treatment of exophthalmic goitre." Dr. John Auer furnishes a description of the Rockefeller Institute for Medical Research and its work. Dr. Thomas W. Harvey writes a biographical sketch, with portrait of Benjamin Rush. Other contributions are:

"Parathyroid Treatment of Paralysis Agitans," by Wm. N. Berkley, A. B., Ph. B., M. D.; "The Treatment of Diabetes," by H. B. Anderson, M. D., L. R. C. P. (Lond.), M. R. C. S. (Eng.); "Clinical Inferences to be Drawn from the Wasserman Test," by Frederick Baumann, M. D., Ph. D.; "Some of the Clinical Phenomena Assosciated with ArterioSclerosis," by William Russell, M. D., F. R. C. P. (Edin.); "The Diagnosis and Treatment of Obscure Cases of Pyelitis and Hydronephrosis," by Guy L. Hunner, B. S., M. D.; "Pyelitis: Its Clinical Varieties and Treatment," by James Burnett, M. A., M. D., M. R. C. P. E.; "Specific (Neisserian Proctorrhoea," by Frank K. Green, Ph. G., M. D., and Q. W. Hunter, M. D.; "Dulcamara Poisoning," by Harry M. Gangloff, M. D., and Charles A. Ley, M. D.; "Gastric Dyspepsia Due to Intestinal Diseases and Intestinal Indigestion of Gastric Origin," by Thomas R. Brown, M. D.; "Natural Selection: The Etiological Factor in the Decrease of Tuberculosis," by Lawrence Irwell, M. A., B. C. L.; "The Features of the Normal Heart," by Paul Bergouignan, M. D.; "Enucleation of the Tonsils and Removal of the Adenoids and of the Lingual Tonsil by Simple Methods," by Curtis C. Eves, M. D.; "The Prognostic Value of an Immediate Examination of Peritonitic Exudates," by D. P. D. Wilkie, M. Ch., F. R. C. S.; "Weak Feet," by Irving D. Steinhardt, M. D.; "The Indications for Nephrectomy, with Illustrative Cases," by Charles Greene

Cumston, M. D.; "A Case of Stab-Wound of the Heart: Transdiaphragmatic Pericardiotomy: Recovery," by David M. Greig, C. M., F. R. C. S.; "Wherein the Diagnosis of Pellagra Is of Surgical Importance," by Legrand Guerry, M. D.; "Surgery of the Thymus Gland, the Thoracic Lymphatics, and the Vagus Nerves," by B. Merrill Ricketts, M. D.; "Anorectal Fistula," By Bernard Asman, M. D.; "Some Plastic Vaginal Operations," by Chauncey D. Palmer, M. D.; "The Use of the Stem Pessary for Amenorrhoea and Dysmenorrhoea: Stenosis and Ulcer on Labia: Rubber Gloves: Laceration of the Cervix and Perineum," by J. Henry Carstens, M. D.; "The Relation of Prison Life to the Development of Insanity Among Prisoners," by Paul E. Bowers, M. D.

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"Hypodermic Medication: By Frank Webb, M. D. Member of Connecticut Eclectic Medical Association. Published by Therapeutic Publishing Co., Boston, Mass.

This small book tells us very clearly about the Pharmacy of Plant Hypodermics, taking up the different drugs separately and telling us in what diseased conditions they are to be used. It is a very valuable book for those interested in this line of work and is indispensible in ones medical library who uses this form of medication.

The points given in the introduction as to the proper way of giving a hypodermic under the heads of "a" Preparation of the Patient "b" The Place to Insert the Needle "c" The Preparation of the Drug "d" The Size of the Dose should be read by every practitioner.

F. W. V. K.

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Diseases of Women—Pathology and Treatment: Fourth Edition. Rewritten by A. Martin and Ph. Jung, der Universitats Frankenlink in Greifswold. Translated by Henry Schultd, M. D., Prof. of Gynecology, Chicago College of Medicine and Surgery; Medical Dept. Valparaiso University; Attending Surgeon, St. Mary's of Nazaraeth Hospital; Attending Gynecologist Francis E. Wilard Hospital, Chicago.

I wish to congratulate the authors on this excellent work also the translator for putting this valuable contribution to the subject in reach of all. Especially to be commended is the conciseness of the work, the wealth of illustrations, the uniform classification of subjects, and the indications for both general medical and surgical treatment which is often left out of works on gynecology but is a very valuable asset to the general practitioner. Another feature of the work which is especially valuable is the detailed pathology given of the different conditions met, a feature which will greatly enhance the value to any medical man.

The work is of a convenient shape and size, the type is excellent and it has the advantage of not being burdened with superfluous material. General men as well as specialists will find this a valuable work to have handy at all times.

F. W. V. K.

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BOOK NOTES.

A new fasting treatment in Diabetes and other chronic diseases by Dr. G. Guelpa, Paris, France, translated by F. S. Arnold, B. A., M. B., B. Ch. Oxon with an introduction by the translator and a chapter on morphine addiction by Oscar Jennings, M. D., Paris France, are the statements made on the title page of a very interesting and instructive book of 150 pages, published by Rebman Company, 1123 Broadway, New York City and sold at $1.25 per copy.

In the British Medical Journal, Oc-

tober 8th, 1910, was pul lished a paper read before an annual meeting of the British Medical Association held in London, England, on July, 1910, by Dr. Guelpa of Paris on "Starvation and Purgation in the Relief of Disease." This paper is the foundation for the book and the results claimed for this new treatment in a case of diabetes with commencing gangrene and in one of the old standing gouty anthritis in which the "disintoxication" treatment was applied with success not expected by the use of any other methods of treatment now in use. The translator says that but little attention was paid to the paper in England or this country, though much interest in it was shown in Paris. Again he says, "This abstinence purgation treatment sounds severe. If, however, a bland saline purgative such as the Sulphate of soda be used, the treatment can be carried out for a period of three days without any hardship, or suffering. Dr. Guelpa's statements. I have verified repeatedly. Several instances of remarkable improvements in cases of diabetes are cited with considerable detail and the testimony offered by the author's colleagues is all the more convincing, because they were very skeptica lat first and criticised his skeptical at first and criticised his ly until they proved them to be true by trying the treatment in several cases.

This simple and as proven, harmless treatment for such an intractable disease as diabetes, for which we have not had any satisfactory therapeutics heretofore, certainly demands that we give it a faithful trial after fully acquainting ourselves with the doctor's plans and directions for carrying out the method. The chapter on drug addiction and alcoholism by Dr. Jennings in which he describes his application of the treatment in those cases. is also very interesting and helpful.

Those who may buy the book will certainly get value received by becoming fully conversant with the startling theory therein set forth. J. V. S.

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Being a text book on Medical Economics, is the title of a book written by Thomas F. Reilly, M. S., M. D., Professor of Applied Therapeutics, Medical Department, Fordham Univ, New York City and published by J. B. Lippincott Co., Philadelphia, Penn., is a wonderfully valuable book and treats of the extremely important and greatly neglected view of the professional life of doctors of medicine.

Usually the newly fledged M. D. is pushed out from the protecting care of his Alma Mater without any instruction in the subject which is the title of this book and without demonstrations of how to attain success in a business way nor the solicitous care of any one capable of waring or advising either the presence of or how to escape the heedless steps. The author only restates a well known fact when he says in the preface, "Many men well skilled in the science of medicine are lamentable failures when it comes to actual practice, not so much from their failure to understand, to diagnose, and to treat disease as to make a livelihood, as to know how to get along with their patients and other doctors." Again, "At the commencement of a medical career, many great problems face the beginner. It is for many the most momentous time in their career, errors made then are frequently never righted, habits acquired are seldom changed and the whole building of a medical education may collapse." In the introduction the author discloses the fact that the book is written very largely on the basis of problems that presented themselves to him in the first years of his practice. A plea is made for more medical college instruction on this point, giving as a reason that the pres-

ent day student of medicine seldom has the advantage of the preceptor system formerly prevailing almost universally. There are 40 chapters and nearly 300 pp. in the book. Some of the more important titles of chapters are: Hospital appointments, Post graduate study, State board examinations, Location, Office, Salaried medical positions, such as in the army, Navy, etc., Medical societies, Office call, First visit, Nurses, Fees, Collections, Bookkeeping, Ethics, Advertising, Commissions, Consultations, Dispensing, Emergencies, Abortion, Specialists, Automobile vs. horse and carriage, On making friends, Personal manners and appearance, Marriage, etc.

Each of the subjects being treated in a practical manner and from the personal erperience of a close observer and successful doctor and business man is a sufficient guaranty of the value that we claim for the book. There are sixteen helpful illustrations in the book.

The medical man who is trying to do without it is losing money instead of saving the purchase price.

J. V. S.

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Nathan S. Davis, Jr., A. M., M. D., Professor of the principles and practice of medicine in Northwestern Medical School, Chicago, Ill., etc., is the author of a new book on "Food in Health and Disease." It is fortunate indeed that so eminent an authority has written a book on such a vitally important topic. This is the second edition, which is another proof of its value to the profession. In the preface to this edition Dr. Davs says, "A description of the principles of dietetics has been attempted as well as a full and practical consideration of the problems of diet and their solution in health and in the most important diseases."

There are chapters on, Food in health, The uses of water, The elements of food, Quantity and kinds of food needed in health, Animal foods, Vegetable foods, Beverages, Infant feeding, Food as a cause of disease, Feeding the sick, Diets for many different disases, in fact most of those known. The book is especially valuable at the present time. When more attention is being given to the subject and its importance in the prophylaxis of and in the treatment of diseased conditions is more fully and more generally realized. It is a book of over 400 pp. and is published by P. Blakiston and Sons' Co., Philadelphia, Pa., and the price is $3.50.

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The following is a simple and usually satisfactory operation for ingrown toenail that has progressed beyond palliative treatment: Beginning at the free margin of the nail about a quarter of an inch from the offending side, with straight, strong, narrow-bladed, probe-pointed scissors cut through the length of the nail and continue under the skin, directly through the root. With forceps loosen and lift out the narrow segment of nail and nail root complete. Be sure no fragments remain. The operation is brief and the plan, even if no anesthetic is used, is not very severe. Lightly pack the narrow wound. If there is much infection apply a wet dressing, otherwise a simple pledget of gauze fastened with adhesive strips. The patient can at once walk with comfort in his street shoes, and the after-treatment is trifling.—American Journal of Surgery.

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For nasal hemorrhage: Apply pledgets of cotton soaked in peroxide of hydrogen or in a 10 to 20 per cent. solution of antipyrin. Avoid iron styptics. —Medical Review of Review.

Wisconsin Medical Recorder

A Monthly Journal of Medicine and Surgery, devoted to the best interests of the profession

VOL. XVI FEBRUARY, 1913 NO. 2

WHY WE GROW OLD

G. G. BURDICK, M. D. and THEODORE C. F. ABEL, M. D., Chicago

Continued from Page 3 January Recorder

SEWER DISPOSALS.

A prolific source of intestinal diseases like typhoid fever can be traced to municipal ignorance or worse. The common method of taking drinking water from a stream and then dumping the human excreta back in the stream for the benefit of the city farther down, so as to contaminate their water supply, is little short of criminal, and should call for corrective legislation. It would seem like sound reasoning that a collection of individuals should not be allowed to continue an act with impunity, for which one would be punished, yet along the Ohio River a very saturnaiia of typhoid fever has run for years and no intelligent efforts have been made to correct it.

The toxin from the typhoid germ has a destructive effect upon the intestinal mucosa, while the germ itself may find its way into the blood, gall bladder or other parts to form the nucleus of a chronic inflammation or stone. Much damage always results from the presence of this toxin to the ductless glands like the thyroid, adrenal and the pancreas, all very important structures, whose well being is necessary to continued health.

WEAKENING OF BODY DEFENSES.

At times we are more susceptible to microbic diseases than others. If for any reason the stomach fails to produce a sufficient quantity of hydrochloric acid, as frequently happens, following a mental unrest or a low intake of salt, and we should inadvertently swallow pathogenic bacteria with our food, it must follow that instead of finding unfavorable conditions present for their development, the very reverse is true. They have food, moisture and the proper environment, with the result that in from two to five hours they have multiplied at least twenty times, while their vitality has markedly increased. This has the result of throwing just so much more work on the leucocytes to protect the body, and results in a fever from the toxins liberated from the dead bodies of the invading bacteria. This cause pains and vague aches, with more or less lassitude. In a few days the condition may pass off with the self-complacent diagnosis of a "bilious attack."

"Where ignorance is bliss 'tis folly to be wise" and perhaps it is well that the patients did not actually know what was going on in their blood stream, or they would have been terribly alarmed at the condition of affairs. That the battle is won is generally not especially to the credit of the sufferer, but is owing to the fact that his organs are still able to maintain an effective defense. Repeated conditions of this kind, however, gradually bring about a condition where nature's resources are exhausted and the germs

gain an entrance in such numbers that they can withstand the attack of the white blood corpuscles. It is a life and death struggle. Many retreat to those parts of the body where accident or structural weakness has made a good supply of blood impossible, and therefore their enemies are unable to follow. Here they multiply and flourish under certain conditions while the white blood corpuscles, unable to get at them, are industriously hurling themselves at their stronghold, until the patient is protected by a wall made by the bodies of its defenders. Here eventually the enzymes or digesting fluids of the leucocytes gradually liquefy their entire mass, killing not only the bacteria but themselves, and an abscess results which is the salvation of the patient. It occasionally happens that bacteria gain entrance in such great numbers that they multiply in spite of all defensive action in the body.

THE BLOOD STREAM.

This remarkable fluid, by means of which food is carried to all parts of the body, is very complex in its make-up. It is a mobile fluid, which contains between 4 and 5 million of flat discs, called the red blood corpuscles, to the cubic millimeter in health. These discs are a cell containing iron in a peculiar form, which absorbs oxygen from the air in the lungs, and parts with it to the tissues where needed. In health a certain percentage of this substance must be present and any failure will cause the condition we call anemia. In health these discs are perfect in form and color but become distorted in disease.

THE DEFENDERS OR WHITE CORPUSCLES.

In normal health, these are present to the number of about 6000 to the cubic millimeter, this number being increased in emergencies or decreased upon profound toxin poisoning.

The blood stream removes, by means of the salts which it carries in suspension, the carbonic acid gas formed from the destruction of the tissues by oxidation.

The blood acts as a general heating system, carrying heat where required and maintaining practically an even temperature in the different parts of the body. The temperature of the blood remains fairly constant in health owing to the oxidation of sugars, fats and proteids in the liver, the mechanism being controlled through the sympathetic nervous system.

DIET AS A FACTOR IN DISEASE.

Many elements are required for the well being of the body and a constant supply of material must be furnished. If for any reason the body is deprived of certain elements, nature will make a grand effort to use it to the best advantage, and conserve the amount that may have been retained. The body cells are made up of protein material, very rich in nitrogen and phosphorus, and their life depends upon a constant supply of this material being kept up, as it is doubtful if any other food can be used for this purpose. Fats, starches and sugars are energy producing materials. They have a fuel value only, and while they may be used temporarily as padding for muscles, or in such other parts of the body where a reserve supply of fuel may be stored without producing discomfort or disease, they are utterly unable to reproduce a single cell.

DIET REGULATIONS.

Nearly all Americans eat too much, and usually show little thought in using a proper selection of diet. No general rules can be laid down that all may follow, owing to the structural difference in the bodies of different people, and their habits, work, etc. Generally speaking, we eat too much protein food, far more than our legitimate requirements. One ounce of protein food daily, with a suitable selection of other diet will make up all loss of nitrogen

in cells and leave a safe margin over for such repairs as nature may consider necessary. This will give us about 600 calories of proteid food and we can easily make up the 3000 calories required from the carbohydrates and fats.

If our work requires hard, physical labor, the wear and tear upon our bodies is much greater; so without danger we can increase our proteid food to about one pound daily, giving us approximately 1700 calories of cell-producing food, as all nitrogenous food not required for repairs may be used as a source of energy, by many people.

The use of large amounts of nitrogenous foods by people who lead sedentary lives is dangerous and perhaps is one of the greatest factors in hastening the onset of disease and shortening life.

PHYSICAL FACTORS IN HEALTH.

For healthy digestion and good health there are many factors which enter into the equation, and none greater than the mental factor; a contented happy person seldom suffers from digestive ailments, while on the other hand these disturbances are quite common among people who are discontented, direful and melancholy. No one thing will so surely and quickly check digestion as fear, as has been noted by many people, in the sudden drying of the mucous membrane of the mouth, or a sudden fright. The same process extends to all the digestive tract and digestion is immediately stopped. It makes no difference that the fear is of a temporary character, the effects will last for several days or weeks, and cases have been noted, especially among women, where their ill-health has been assigned to a great fright.

REGULAR HABITS.

A certain amount of latitude is given human beings, so that many with a certain amount of impunity may vary from regular habits in sleeping, and eating, yet if this variation becomes a habit, irreparable harm is done to the individual; they must pay the penalty in impaired digestion and it begins to tell seriously upon the nervous system, and we are informed that the patient is very nervous. If the process is not corrected gross lesions of the nervous system are inevitable.

LOSS OF SLEEP.

No more serious fault can be acquired by an individual than irregular hours for sleep. Every person requires a certain number of hours of healthful sleep in order to allow nature time to repair the wear and tear of the day. If this is curtailed, the work is hastily done, and an immense amount of debris has accumulated in the blood, not sufficiently oxidized so as to be eliminated readily by way of the kidneys. The result will be that the person will feel miserable for several hours after he has awakened.

RECUPERATION.

There is no doubt that work is one of the greatest blessings given humanity and no one factor does more for our moral and physical welfare than a steady occupation within the strength and endurance of the individual. The busy person is usually contented and happy and they go to make up the backbone of our civilization. Modern conditions in this present age of selfishness have many times laid a burden too heavy to bear upon the shoulders of the human wage slaves, under which they are compelled to stagger for many ears owing to the specter want always being within a few days journey from those we love.

(To be Continued.)

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Atropine will relieve the symptoms of iodism in a way which the uninitiated patient considers marvelous. It is perhaps the only actual instance of a "cold" cured in an hour.—(St. Louis Medical Review, November, 1912).

DEPT. OF SURGERY

By R. H. CONNELL, M. D.
Beloit, Wis.

DIAGNOSIS AND PATHOLOGY OF ACUTE SURGICAL DISEASES OF THE ABDOMEN.

Satisfactorily to elucidate within the limts of a paper of this kind, the subject of the pathology and diagnosis of acute surgical diseases of the abdomen would, in the words of Deaver, be something like cleaning the stables of Augeas and would require a second Hercules for its performance. No matter where the doctor is located, in the smallest hamlet or the largest city, whether his practice be large or small, whether it be the beginning of his active career, or toward the end of his professional life, he will see the diseases which I am about to describe, and many times in his life, will see sad consequences follow from neglect of the early and, by the way, only proper diagnosis.

In the olden days of medical treatment, the diagnosis did not make as much difference as today, when this surgical treatment has worked such wonders through the width and breadth of our broad land. If the correct diagnosis is missed, if the opportune moment is lost, and the proper surgical treatment delayed, what inexpressible sadness must fill a doctor's heart when he is compelled to stand idly by and watch his patient sink beneath the blast of peritoneal inflammation. How sad he must feel when he realizes, as he surely must, that an early operation would have saved his patient's life, which is now ebbing away before his eyes, and would have restored to a family circle a beloved husband or wife, an only son or an idolized daughter. Sad then are his regrets, but vain his efforts to slow the fevered pulse, to check the constant vomiting attendant upon a fatal case of peritonitis.

The violence of the symptoms can now be soothed by an opium trance, a trance which lasts until the sufferer has reached that land from whose bourne no traveler returns.

It would be mere presumption on my part if I were to attempt to tell you anything new on the pathology and diagnosis of these surgical affections, because you are all familiar with the subject as described in the text books, and many of you no doubt have given a careful study to the disease of this region. What I am going to say is not entirely original with me, has been gathered during the last few years from text books, lectures, clinics, both in this country and in Europe, and has passed through the alembic of my own experience as I have observed these symptoms in my own surgical practice.

A careful observation of the symptoms has often led me in the right direction, and helped me not only to decide on the proper operation, but to work to better advantage than would have been the case if these facts were not classified in my mind and fairly well understood.

Practically all the surgical work of the world today is derived from the hands of the general practitioner and in his hands lies the destiny of every patient suffering with an acute disease of the abdomen, and an effort will be made in this paper to lay stress particularly on the diagnostic points which will lead him to make an early and accurate diagnosis and send his patient to the surgeon for his aid. I will not make any attempts to cover all the acute diseases of the abdomen but will confine my remarks to some of the most common ones.

The first one that will attract your attention is the common disease appendicitis, and surely you would think the symptoms of this sickness clear and well understood, and yet if I were to ask of every doctor before me today, What are the symptoms of an acute

attack of appendicitis, the answers would be such that you would plainly see that the disease is not too clear, nor too well understood. This is not because you are not acquainted with the sickness. But it has so many different conditions, which change its pathology and symptoms, that it has become the most puzzling disease in all our surgery. Case No. 756 in my own practice, presented herself for examination in the fall of 1907. Girl 16, with the following history: Has had always trouble in her abdomen, and at this time pain severe enough to keep her from doing any work, extending over the entire abdomen. Small for her age, stoop-shouldered and the picture of a rickety child. In addition to this she had four scars on her abdomen from previous operations by four different doctors. The history of one case as elicited from this patient brought forth the fact that the doctor removed some sequestrae of bone through an incision low down in the groin. She looked to me to be a case probably suffering with tubercular peritonitis, and believing the history as given by the patient and the failure of four attempts into the peritoneum to cure her, together with her general condition, I was led to suppose that tuberculosis was an etiological factor. An operation was done a few days afterward through a median incision and much to my surprise I found an appendix acutely inflamed, about seven inches long, reaching from the right corner, directly across the abdomen, with its free end attached to the abdominal wall on the left side, immediately under the scar of a previous operation six months before. The removal of the appendix was followed by immediate relief of symptoms, and up to the present time, this girl has had no return of any abdominal symptoms.

Man 38, January, 1906, seized with pain in both gluteal regions, for five days very severe. Three weeks later, pain again appeared only in the right gluteal region, severe and sharp in character. Admitted to the hospital July 25th, after having received all kinds of treatment without relief. On entrance he complained of localization of pain at the great sciatic notch over the sacro-iliac joint and on both sides of the tendo achillis. On July 28th, through an incision over the right sacro-iliac joint, part of the ilium was gouged away. The bone appeared lighter and softer than normal. The sciatic nerve was then stretched. In spite of the treatment, the pain persisted and on Aug. 18th, osmic acid was injected into the sheath of the right sciatic nerve just below its exit from the pelvis. On the 19th the leg was placed on a double-inclined plane, but this had to be removed on the same day on account of the pain. On the 21st a long straight splint was applied to the outer side from the axilla to the ankle. But the pain continued in spite of what was done. Ruch saw this patient Aug. 30th, examined the appendix and found it tender. He also obtained the history of repeated attacks of stomach trouble during the past year, which had been pronounced intestinal indigestion. On Sept. 1st, the appendix was removed lying across the psoas and almost entirely retro-peritoneal. Three months after the operation this patient was in excellent health and has remained so as far as I can learn to the present time. —(Murphy's Year Book, 1908, page 437, Practice of Ruch.)

Both Dr. Murphy's case and the one in my own practice, if questioned closely would give a pretty clear history of an inflamed appendix, and right here I wish to emphasize the necessity of eliciting a clear history in the examination of every case. The friends of the late Nicholas Senn of Chicago, especially those who attended his clinics can bear testimony to the clinical history that he elicited in each case, and the clearness

with which he brought forth the diagnosis by weighing the evidence from this history. Dr. Senn was a pupil of the great Kocher of Berne, Switzerland, and no doubt derived much of his earlier training from this great man, a man who has no equal in Europe or probably the world.

Then, what are the symptoms of an acute attack of appendicitis as generally seen that can be used as a working basis.

1st—Pain in the abdomen, sudden and severe.

2nd—Nausea or vomiting, or both, following in about three or four hours after the initial pain.

3rd—General abdominal sensitiveness, particularly over the right side, if the appendix happens to be on that side.

4th—Temperature.

Not alone should these symptoms be present, but should appear in that order, and if they do not appear in that order, diagnosis must be doubted.

Temperature should be present sometime in the last half of the first twenty-four hours, and if not present, diagnosis improbable. At least, not fully sustained.

I am aware that this fever question will arouse opposition in this audience, but upon close observation of a great number of cases, I am convinced that temperature will be found in every case of acute appendicitis, some time in the first twelve to twenty-four hours.

Case No. 854. Girl of 6. In the practice of a clever general practitioner, with a large experience covering a number of years. This girl was also examined that same day by an interne just finishing his service in one of the large hospitals in Chicago. I was called at night to operate upon this case for an acute attack of appendicitis. She was on the table and preparations made for the operation when I arrived at the house. The history of the case which I got as the patent lay on the table ready to be operated on, was substantially as follows. I am quoting the words of the family doctor. "This girl has been sick two days, went to bed with fever, and showed no symptoms in the abdomen until today noon, when she was suddenly seized with pain in the right side over the usual location of the appendix."

You will, of course, quickly notice that her symptoms were in variance with the classified order as indicated for the typical cases of appendicitis. That her temperature in place of being the fourth symptom, was now the first symptom, and the first symptom pain, was the fourth symptom. Having this clearly in my mind, I promptly said to the doctors that it did not have the appearance or history of an acute attack of appendicitis. The operation disclosed a normal appendix, and the girl recovered from a typical pneumonia in spite of the surgical treatment.

If it is so difficult to make a diagnosis of acute appendicitis, it must simulate other abdominal diseases, and, if so, what are they?

1st—Extra-uterine pregnancy, and no doubt if the history of the cases operated on by the surgeons before me today was known, in several instances the testimony would bear out these facts.

Let us stop for a moment to look into the subject of extra-uterine pregnancy. A fertilized ovum arrested anywhere between the Graafian follicle and the uterine cavity, and there undergoing development, we know as an extra-uterine pregnancy. Primarily, always in the tube, but may become tubo-ovarian, abdominal, or even uterine in its development.

What are the symptoms of a ruptured ectopic pregnancy? Given a woman with other signs of pregnancy such as morning sickness, enlargement of the breasts, etc.

1st—Pain in the abdomen, sudden and severe.

2nd—Collapse.

3rd—General abdominal sensitiveness and fullness.

4th—Temperature normal or subnormal.

Case No. 975, Mrs. M., occurred in my own practice. Young woman, aged thirty, married four years. Gave the history of having an attack of appendicitis before she was married with recovery. The attack was not severe. About six months after her marriage, had been in bed six or eight weeks with some abdominal trouble, diagnosis could not be agreed upon by the different physicians who saw her and operation not performed. This attack was also followed by apparent complete recovery. Two years afterward suddenly seized with pain in her abdomen at night. And the writer saw the case. She was promptly removed to the hospital to be prepared for an abdominal operation. Her brother-in-law, a clever physician and surgean came from Chicago to see her in counsel. I asked him what he thought of her, and he answered, "Her history and symptoms are those of a clear case of acute appendicitis." She had the pain corresponding to No. 1, but the second symptom was missing. She looked to be in a partial collapse. No. 3 was present. Not alone was her abdomen tender, but it seemed to be fulled than normal, which we attributed to tympanites, due to a beginning peritonitis. Her temperaturt was a shade sub-normal. The operation proved that she swam in blood, from a ruptured right extra-uterine pregnancy, and in addition, had an involvement of the appendix, which accounted for at least an attack before she was married, and probably was a factor in her extra-uterine pregnancy.

Case No. 1085, Mrs. F. This woman was suddenly attacked with pain at night, and the doctor who saw her looked on her case as a simple miscarriage. She gave the history of having some abdominal trouble for years, spells of pain in the right side, and these together with the leaking of blood from the vagina led me to think that I was dealing with something more serious than an ordinary miscarriage. According to her own history, she had sudden pain at night, followed by unconsciousness, general abdominal sensitiveness, but no temperature. She was promptly removed to the hospital and an abdominal section performed. She also had a ruptured right extra-uterine pregnancy, which explains the symptoms. And the chronic spells from which she suffered for years was due again to an old chronic appendicitis. She made a good recovery, not alone as to her life, but has been in perfect health since the operation; two years.

In looking over your cases, you will find that the extra-uterine pregnancies occurred as a rule in women who were practically sterile, and you will also find in the records of your cases that a great many of your childless women have had a great deal of abdominal trouble, and in many instances, pain in the right side.

Did you ever stop to think how many of the women in your practice, who are suffering all the horrors of painful menstruation, had some time in their life an acute appendicitis, which attacked the ovary, or, the ovary attacked the appendix. I am convinced from my limited experience that one of the etiological factors in a great many cases of extra-uterine pregnancy, and also a factor in the sterility of a great many women is due to the mischief caused by this same appendix.

The next class of acute surgical diseases to which I wish to call your attention, are acute inflammations of the gall bladder and its ducts. It is necessary in this connection in considering

the cause of acute diseases of the gall bladder to bear in mind the anatomical relations and mechanical provisions. So long as the anatomical relations are normal, and the organ is mechanically perfect, there is no occasion for treatment, because the gall bladder becomes distended with bile, which is a non-irritating fluid and is emptied regularly without pain or trouble. Normally the gall bladder being suspended under the liver empties itself rapidly into the duodenum. It seems to have been proven beyond a doubt that the gall bladder shares the fate of all hollow organs in the body. That is, the stomach, the urinary bladder, pelvis of the kidney and the vermiform appendix. So long as there is nothing to prevent these hollow organs from emptying their contents, they are almost certain to remain normal. But as soon as obstructions occur, interfering with the natural drainage, trouble must follow. In other words, interference with the outflow of any of these hollow cavities is sure to cause a certain amount of residual substance which makes the accumulation of bacteria possible and indeed very probable. (Ochsner.)

And from this we get an injury to the lining of the gall bladder. It has been shown experimentally on the lower animals, and on man, that as soon as the outward flow of the bile has been obstructed by a ligature of the common duct, that the bile above the obstruction becomes infected. The infection as you know, has two ways of attacking the gall bladder, one, the most common I think, from the duodenum up the common duct, anl from there up the cystic duct. The fact that the bacillus coli is the most common bacterial inhabitant of the gall bladder and of gall stones is suggestive that the intestinal origin is the most probable. The other cause, by an infection from the blood current through the portal vein, is to my mind not a frequent occurrence.

The greater number of inflammations of the gall bladder are chronic processes and do not call as a rule for prompt surgical intervention. It is only the acute destructive type, that interests me in this paper.

These take place as a rule from a complete obstruction of the cystic or common duct, and call for prompt surgical intervention. The symptoms of this disease are the same as any gall stone colic, plus the severity which accompanies this obstruction. Pain, agonizing and severe over the region of the gall bladder, and under both shoulder blades—right side rigidity, and as a rule, dullness, and in many cases the gall bladder can be palpated in the first couple of days of the attack. Given a case of this kind with the gall bladder under tension, you can look for a gangrene of the gall bladder, or the porforation of its walls by a stone.

I wish to urge that this class of gall bladder cases needs the surgeon, probably as soon as any disease I know of.

In connection with acute inflammations of the gall bladder and its ducts, considerable attention has been directed to its association with diseases of the pancreas, on account of the relation of the pancreatic duct to the common duct.

As you know, the pancreas is the great abdominal salivary gland, and lies in a most protected situation.

No other organ in the body, which has as valuable a function, is so little liable to intrinsic disease. Its natural defenses have but a single defect, and that is, the mechanical association of the main pancreatic duct, with the common duct of the liver.''

It is this unfortunate association of terminal facilities that the large percentage of diseases of the pancreas have their etiology.

The triangle of pancreatic inflammation is that part of the head of the pancreas which lies between the duodenum

on the right, and the ducts of Santorini above and Wirsung below, and it has been shown that catarrhal jaundice, especially the epidermic form is probably due to pancreatic disturbance, and is similar to such inflammation of the parotid gland as mumps. (Mayo.)

If it were not for the duct of Santorini which has an independent opening into the duodenum, the diseases of the pancreas would be much more common and fatal. There is no doubt, the infection travels up the common duct into the gall bladder, where there is a possibility for a large accumulation of infected bile, which on its way down, is diverted sometimes into the pancreatic duct, especially if there is any obstruction within the common duct below where the pancreatic duct enters. Whatever the relations of these two diseases are, surgeons now agree that disease of the gall bladder and its ducts, and especially the obstructive type, are an etilogical factor in diseases of the pancreas. Practically all patients with a pancreatic disease have an involvement of the biliary tract.

The diagnosis of acute disease of the pancreas is not a very easy matter, and almost impossible in many instances, before exploration is made.

Case No. 734, Clinic of Israel, Berlin. Patient, male 40, previous illness no bearing. Present illness, pain, sudden and severe in the abdomen, right side. Operation with diagnosis of appendicitis of a severe type. Small masses resembling actinomycosis were found. Operation ended with that diagnosis without seeking the appendix. There was considerable exudate present. Some days later, hemorrhages from the incision began, and he died on the 11th day after the operation.

Post Mortem. Extensive fat necrosis involving the entire abdominal cavity, the omentum and particularly the region of the cecum. The appendix was normal. The pancreas was normal. No lesion could be found to account for the fat necrosis. It was concluded that they had to deal with a primary fat necrosis and that the pancreas was shown to play only a subordinate part in this disease. It would seem (Richter) that Israel's case must be accounted for, by the fact that it was a slow leaking duodenal ulcer, with extensive change in the peritoneum, making it easy to overlook the ulcer. The tendency of perforating duodenal ulcers to produce symptoms referable to the appendix has been known for many years. Moynihan has explained this fact by suggesting that the escaping fluid passed down along the watershed over the mesocolon along the outside of the ascending colon to the cecal region. According to Moynihan, 25 per cent of all perforating duodenal ulcers are operated upon under the diagnosis of appendicitis.

What are the symptoms of an acute disease of the pancreas, and what are the terminations. The symptoms are very much the same as in any other violent inflammation within the abdomen. Sudden onset, agonizing pain in the upper abdomen, with collapse, followed by prostation, pulse quick, slight elevation of temperature, nausea, vomiting, and rapid abdominal distention. The acuteness of the symptoms suggests obstruction, which is belied by the ability to secure the passage of gas. (In the very acute cases hemorrhagic pancreatitis may result and destroy the pancreas in a few hours. The most interesting feature of acute pancreatitis concerns fat necrosis. It is a disseminated necrosis of fat due to the escape of pancreatic ferments which involve to a greater or less extent the omentum, mesentery, retroperitoneal and other adipose. Suppression of the urine is a common symptom, accompanied by delirium, and a semi-comatose condition due to the effect on the envelopes of the

kidney of this fat splitting ferment. (Mayo.)

Ulcer of the stomach and ulcer of the duodenum are not a part of this paper, as they are generally chronic conditions, and have given a history very often of vomiting blood, blood in the stools, dyspepsia, etc. It is only when they take an acute form, either perforation or hemorrhage, that the necessity for surgical intervention is so urgent. Given a patient with a history that pointed to an ulcer of the stomach, or duodenum, and these violent symptoms such as pain, collapse, muscular rigidity, you have a case that is calling for surgical treatment with probably a diagnosis of one of these affections.

Case 1125. Girl 16, suddenly attacked with pain in the abdomen, looked to the doctor to be some serious acute abdominal trouble, calling for surgical treatment. I saw the case the same day. Operation advised. The case got into other hands and we did not see her again for three or four days, when she was brought to the hospital for surgical treatment. She was then suffering with an acute general peritonitis. The operation disclosed a normal appendix, and the cause of the peritonitis, a ruptured duodenal ulcer. She died practically before the operation was completed.

The next and last acute condition, to which I wish to call your attention, is a strangulation of the gut, and by that I mean, an obstruction to the continuity of the alimentary canal, wherever it may be. This disease is not very uncommon, and calls for prompt surgical treatment. When I was in school some twenty years ago, we were treating strangulations and obstructions nearly altogether on the medical side of the house. And the result of that treatment is no doubt familiar to you all. It was true an odd case of strangulated hernia that could be plainly seen, was relieved by cutting the bands of constriction, but that was the extent of the surgery of those days. In the greatest numbers of them, death followed from undiagnosed and unrelieved internal obstructions, and also from strangulated hernias, which were supposedly reduced by taxis. And right here let me emphasize that no attempt should be made to reduce any hernia by taxis, providing a competent surgeon is anywhere to be found. This condition is calling for an early radical operation, and the sooner the better.

The late Dr. Ferguson on page 160 of his book on hernias, reports the following:

"I traveled 50 miles from Winnipeg, in 1887, when the temperature was 45 degrees F. below zero to reduce a strangulated oblique inguinal hernia, who by the way, was at one time a bare footed schoolmate of mine.

"Under chloroform anesthesia the reduction was effected to my own satisfaction, and to the apparent relief of the patient. Within an hour, I started on my homeward journey, but when 20 miles distant, a telegram overtook me, and I had to return on account of the sudden bloating and the bad condition of the patient. Upon recovering I immediately opened the abdomen in the right inguinal region, and found that the bowel and omentum were obstructed to a considerable degree, although both were reduced within the abdomen. The band was severed, the omentum and bowel liberated, and the wound brought together with through and through stout silk sutures, the best material at hand. A life was saved, and a cure of the hernia effected."

What are the symptoms of a strangulation of the gut?

1st—Vomiting.

2nd—Tympanites.

3rd—Temperature normal or subnormal.

4th—Pain.

5th—And most important of all, increased peristalsis.

This is another class of cases, which, if not relieved, will lead to death by the same route, acute general peritonitis. We have arrived at that stage of our lives when we know that when we are called to a case of general peritonitis, that the doctor that is calling has not been faithful to his trust, in fact, a doctor in my opinion scarcely worthy of the name. We do not believe any longer in idiopathic peritonitis, and we believe in every case we ought to find the cause.

What are they as they ought to occur in general practice? Generally one of three. 1st—Penetrating wounds of the abdomen that do not cut viscus or infection from faulty technique during abdominal work.

2nd—Infection through the wall of organs without perforation. This is the case of the fallopian tubes or appendix or occasionally the gall bladder. As soon as any of these organs are put upon pressure, the integrity of their walls becomes jeopardized, the microbes are able to penetrate to the free peritoneum and set up a violent inflammation.

3rd—The most fatal type of infection from an opening in a hollow organ, such as ruptured fallopian tube, ruptured gall bladder, or ruptured duodenal ulcer, or gastric ulcer.

What are the symptoms of acute general peritonitis?

1st—Vomiting of a greenish fluid.

2nd—Tympanites.

3rd—Temperature.

4th—Pain.

5th—The last and again most importtant, absence of peristalsis.

The picture of the disease is no doubt familiar to you all. And I bring it forward to show that the treatment must incline toward the prevention, not its cure. You will notice that the symptoms of peritonitis as outlined, are those of a strangulation, and if so, where is the difference. If you put your stethoscope over the belly of a patient suffering with a strangulation, you would hear the churning and rolling of the intestines endeavoring to free themselves from the grasp of the strangulation. And in many instances, with friction over the abdomen, you can see the coil or dilated intestine. The peristalsis is greatly increased. On the other hand, put your stethoscope over the belly of an unfortunate victim of peritonitis, and you will hear no sound, all is still, just as quiet as the grave. If any of these patients had been given large doses of morphine, the symptoms will be masked, and I ask that this dangerous drug be withheld, until the diagnosis is made beyond a doubt, and preparation for the proper surgical treatment

And while it is not absolutely necessary to have a diagnosis correct before you operate, still the same good old rule holds true. Poor diagnosticians are poor surgeons, and good diagnosticians are a necessary quantity if a man intends to succeed in this modern surgical age. Careful history of cases and symptoms in their order will often do a great deal where a haphazard examination means nothing. And to him who intends to do abdominal work, without having burned the midnight oil in preparation, and who has not prepared himself for this important work,—these words of mine will fall and bear no fruit. But he who seeks perfection in his work,—who makes an attempt to save his patients, that he may be known as a type of man who is safe, and that his diagnosis is backed by experience and careful thinking, he probably will appreciate my effort, and I hope before me today in this great State of Wisconsin, a state that has produced some of the greatest medical men in the world, that it will be said of some of us, the highest tribute that can be paid to any surgeon: "He is the type of man I would want to operate on me."

ELECTRO THERAPEUTICS

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X-HAY TREATMENT OF TUBERCULOUS ADENITIS.

Bruneau de Laborie, in Bulletins et memoires de la Societe medicale des hopitaux de Paris, May 9, 1912, praises highly the X-Ray treatment of tuberculous lymph glands, laying stress on its certain and prompt action, its harmlessness, and the good cosmetic results it yields. Where the glandular involvement is in the early stage, with simple enlargement and increase of the lymphoid tissue, one application alone is in some instances sufficient to cause complete disappearance of the gland. Sometimes, on the other hand, the first irradiation produces further enlargement of the gland; subsequent exposures, however, bring about the usual reduction in size, and six or seven sittings on an average, suffice to give durable results.

Where caseation has already begun, X-ray treatment often brings about rapid softening of the gland, which should be evacuated by simple puncture. In these cases the treatment is less certain in its results and necessarily of greater duration than in the incipient class, but is none the less well worth a continued trial.

Irradiations are given the author every two weeks, except in the case of tracheobronchial adenitis, where, since the rays can be applied alternately from the anterior and posterior aspects of the thorax, weekly sittings are given. If sinuses are present the first two or three treatments are given without the interposition of a filtering screen; in all other circumstances a screen of aluminum, 0.5 mm. thick is used. The amount of rays administered is measured with Sabouraud's pastilles, four H. units at least being given, but five units never exceeded. When, after several consecutive sittings, the skins shows a slight reddening, the treatment is stopped for a month; in this way, the author finds, X-ray dermatitis may regularly be avoided. A perforated glass or leaden shield is used to protect the skin surrounding the region treated, but the opening in it must be larger than the apparent size of the gland. Twenty cases are reported in which the X-ray treatement led to a cure, in some instances over a year ago, without recurrence. Twelve others are under treatment and have shown pronounced improvement.

HIGH FREQUENCY DESSICATION.

Clark, in the Monthly Cyclopedia, describes briefly the technique and in greater detail the effects of, and indications for this procedure. The dessication spark causes dehydration of tissue and has the power to penetrate from a small fraction of an inch to one inch or even more. A growth of considerable size may be destroyed by one application, and rapid repair follows. With correct technique the procedure is not very painful; in hypersensitive individuals a local anesthetic is employed. Warts and moles are usually destroyed with one application; a dry crust at once forms, which separates and falls off in from three days to one week. In the treatment of vascular naevi, angiomata, pigmentations, and tattoo marks the results have also been satisfactory. Several cases of chronic varicose ulcers, previously resistant to treatment, healed rapidly after the exuberant granulations were dessicated. In acne the use of the attenuated spark proved very effective. Neoplasms in the bladder or rectum, as well as, in suitable instances, the larynx, may be destroyed by dessication. The method is also available for trachoma, dry granular conjunctivitis, corneal ulceration, and pterygium. In superficial epitheliomata the results have been so satisfactory as to lead the author to discard all other treatment.

In advanced epithelioma, where there is deep involvement, but no glandular metastasis, curettement is advised, or thorough excision, followed immediately by dessication, and subsequently by X-ray treatment. Dessication is recommended in carcinoma only when the operative wound can be left open, in order that the debris may find exit. In inoperable cancer of the cervix dessication is a useful palliative measure. In cancer of mucous membranes, such as the tongue, mouth, or lip, unless seen early, dessication should not be employed alone because the glands are usually involved, even though they art not palpable. The correct procedure is thorough excision, followed by dessication if the wound is left open, or by fulguration if it is sutured, and then by the X-ray.

TREATMENT OF HYPERTROPHIED PROSTATE.

The man with a hypertrophied prostate presents a problem that most practicians dread. He is usually a man in middle life or past that age and he may be really old. The older methods of surgical removal or the Bottini operation are dreaded, catheter life likewise, and castration as a palliative measure is looked on askew. Then comes the question: what shall we do? Let us consider.

Electric currents can be used in the urethra and rendered serviceable in reducing or developing a prostate, according to its condition, by means of insulated urethral tips, the galvanic current aiding absorption, while the faradic is serviceable in strengthening weakened muscles.

The x-rays are being used to some extent through a moderately hard tube.

Dr. William B. Snow, of New York ("High Potential and High Frequency Currents") states that all degrees of hypertrophied prostate may be reduced by persistent treatment for two or three months by static electricity, with a vacuum electrode in the rectum, and with spark gap discharging at about 120 per minute. Usually within the first week the frequency of micturition is reduced and much of the bladder tone restored, and within two or three months the patient is cured. (Medical World.)

OPERATION IN SUPPURATIVE MENINGITIS.

Kostlivy, in Archiv fur klinische Chirurgie, reports three cases of suppurative meningitis operated upon with favorable results in two cases, and observes that the surgeon should not hesitate to perform a radical operation in any case so soon as the diagnosis of an intracranial suppurative process is manifest. It is only by early operation in these cases that the conviction can be forced upon the internist that these cases belong as much to the surgeon as does suppurative peritonitis. By operation the mortality in the most severe cases of peritonitis can be reluced 50%, not to mention the number of patients in whom early operation will protect against these grave complications. Perhaps the same hope will be realized in cases of suppurative mengitis.

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THE PHYSICIAN AS AN ADVISER.

By virture of his greater acquaintance with wordly affairs and the position he holds of viewing a young man's qualities in the abstract, the physician is not overstepping his position in directing the youth to a proper calling. When physical conditions should not permit violent or the usual school-boy exercises, he should be warned of the ill effects of such and a proper line of pleasurable sports be laid out.—E. T. Bush, New York State Journal of Medicine.

DEPT. OF GENITO-URINARY DISEASES

Conducted by
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GONORRHOEAL URETHRITIS.

In order to understand the changes in the tissues due to the gonococcus and treatment of the condition it is necsary to consider the pathological changes that follow the infection.

After gaining entrance to the urethra the gonococci multiply rapidly. They penetrate the subepithelial layers. They invade the glands of Littre, the crypts of Morgagni and undoubtedly the orifices of Cowper's glands. There is an infiltration of leucocytes into and around these structures. If the inflammatory process does not extend beyond the bulb, it is called anterior urethritis, if beyond bulb posterior urethritis.

The posterior urethra may be involved any time even as early as the second and third week. Under appropriate treatment the organisms lose their virulence, and decrease in number. The leucocyte infiltration diminishes and eventually normal epithelium covers the diseased areas and complete repair is the result.

However the outcome is not always so favorable, the infiltration may persist. In spite of treatment, a discharge remains which may or may not have gonococci present and what is known as chronic gonorrhoea follows.

The fact there are so many different remedies and methods for treatment of acute gonorrhoea is good evidence that no specific remedy or line of treatment has yet been attained.

In treating this disease, the object is to get rid of the gonococci. How will it be done, and have we germicides that can be used in the urethra to accomplish this work? If the gonococci were all on the surface of the mucous membrane we have germicides that no doubt would destroy them and could be used safely. Remembering the pathology, namely that the gonococci penetrate to subepithelial layers, invade the glands and inaccessible places. In view of this fact a germicide strong enough to reach these would be powerful enough to destroy the tissues. If any germs did escape they would renew the attack with greater activity since the devitalized tissues could offer but feeble resistance to their onslaught. This is one reason the abortive treatmen is not in favor as it is usually a case of one briliant result to numerous failures. The answer is we have no germicide that can be used with safety and per se reach and destroy the germs as they are found in acute urethritis. The fact of the matter is the agent essential to the destruction of the invading germ is the leucocyte. These, as in other diseases make up the army that repel the attack and restore the broken down tissue. The best remedy is the one that has the greatest germicidal power and the greatest faculty for producing the largest influx of leucocytes.

As a sort of a side issue, no doubt, many practitioners have had cases presenting themselves with a slight discharge (I am talking now only of acute cases) practically no other symptom and have told the patient the attack was a mild one and could soon be cured, only to find it an intractable case with a likely result of the patient complaining or telling his friends he should have been cured long ago as he only had a mild attack. This kind of a case is not necessarliy one of a mild infection but a poor resistance, the leucocytes fail in their duty, consequently there is little discharge, no inflammatory symptoms or reaction.

The patient with the profuse discharge and severe reaction if properly

treated is much more apt to recover sooner than the one with the apparently mild attack.

Considerable space has been taken in discussing the above points, however, there can be no stereotyped treatment for all cases of gonorrhoea and knowing the above facts one is in a position to use better judgment and vary the treatment according to indications.

1st.—Make smear and stain with methyline blue. If gonococci can be found the diagnosis is established. It must be remembered that all urethral discharges are not gonorrhoeal. A diagnosis should not be made by the naked eye apearance of the discharge (pus).

2nd.—Patient urinates in two glasses.

If first glass is cloudy, second glass clear, anterior urethritis. If first glass is cloudy, second glass cloudy, anterior and post urethritis. To be accurate the patient should have retained urine at least 4 hours.

3rd.—If case is one with profuse discharge, and severe inflammatory symptoms, prescribe oil of sandalwood and sodii bicarb. to make urine alkaline. A saline cathartic may be given and bathing organ with hot water frequently aids in relieving irritation. Do not advise an injection for a few days namely until severe symptoms commence to subside, then commence a treatment similar to the following. Regarding choice of injection, the organic silver salts are most satisfactory. Each salt has its favorites. It will occasionally be found that a preparation may be very irritating to some patients. There seeming to be an idiosyncracy. As there are numbers of the preparations on the market there shoud be no difficulty in selecting one that patient tolerates well.

Tables can be found in text-books giving names of these organic silver preparations, silver content which does not necessarily mean efficiency, percentage to be used, etc.

The strength of solution used by physicans as an office injection is usually 4 or 5 times as strong as the one given patient for hand injection, for example we will use protoargol. After urinating, patient should lie on table although patient can be treated standing, then with a blunt pointed glass syringe inject solution, namely 1½% solution protoargol. Fill anterior urethra until distended. All the time keeping pressure on bulbo-membranous junction to prevent the fluid going into posterior urethra. Solution should be retained five minutes either by patient holding end of penis or by means of a clamp. Also prescribe a hand injection of 1¼% protoargol to be used four times a day, cautioning patient to use pressure on perineum to close post urethra. Patient must be instructed not to use a cotton held under prepuce as it obstructs drainage. A bag with gauze dressings which can be changed frequently acts as a satisfactory dressing. The 1½% solution should be given by physician every day and character of discharge noted. After no gonococci can be found continue both injections five days, then stop the office treatment but continue hand injections.

Providing no gonococci can be found five days after stopping office treatment then inject a 1 to 500 silver nitrate solution which need not be retained. Usually a profuse discharge follows this injection which is to be desired as the object is to dislodge any germs hidden deep in the tissue. If gonococci are found in discharge repeat the whole line of treatment until no gonococci can be found. If no gonococci can be found after seven days pass a bougie that just fits meatus and massage urethra gently to expel contents of glands and any deep seated deposits and follow with injection of 1½% protoargol once only anl continue hand injections. If no

discharge returns in a week have patient drink some beer and if this produces no discharge he can be considered cured.

The treatment of course has to be modified according to conditions. If there is hemorrhage or much irritability solution should be weakened and possibly suspended entirely for a few days.

It is essential that a microscopical examination of the discharge be made frequently as these strong silver solutions can produce a discharge free from gonococci so the absence of organisms is the guide to direct one in the use of solutions.

The prophylaxis, hygiene, diet, etc., are given in detail in various textbooks.

The patient should be instructed regarding the above features as especially if a first attack the patient is very ignorant of this information.

Many will take exception to the idea of not commencing injections at once in the severe inflammatory type of gonorrhoea, however it will as a rule be noted that those who do advise injections from the beginning advise non-irritating or very mild solutions which judging from their potency will act for no other purpose than that of a cleansing agent. Nothing has been mentioned of complications or acute posterior urethritis. These will be discussed in next month's issue.

RETROPOSITION OF THE UTERUS

By F. W. VANKIRK, B. S., M. D.
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SYMPTOMS AND TREATMENT.

The condition of retroposition of the uterus is one familiar to all surgeons and general practitioners—and because of the fact that it is a condition so frequently met with, it is a topic that deserves a great deal of thought and consideration even though there are not many new points to be brought out—for it is often a question just what to to do in this class of cases, in consequence as there is a doubt, each individual case deserves the most careful study as to the history, symptoms, etc., before an operation is advised—for among many thousand gynecological cases studied in the large foreign clinics, in a large per cent of the patients there is found a backward displacement of the uterus, yet in many of these cases the displacement is not the cause of the trouble—and when there are no symptoms referable to the condition under consideration it should be against the good judgment of a surgeon to advise an operation.

Before taking up the symptoms and treatment of this condition I want to review briefly the relative position of the uterus in the pelvis and I also wish to state a few facts in regard to the etiology and diagnosis.

The uterus as we all know is suspended and held in place in the female pelvis by means of the following ligaments: broad ligaments, round ligaments, utero-vesical and utero-sacral ligaments, and also by the pelvic floor. Anterio-posteriorly it lies between the urinary bladder and the rectum.

As the fundus of the uterus lies more anterior in the pelvis than the cervix there is a slight anterior and posterior swing of the body, combined with a slight descent as the pelvic floor gives and retracts under the influence of the variation in the intra-abdominal pressure the presence of the different ligaments mentioned above prevents any

wide variation as to its position.

The uterus in normal position is anteverted and slightly anteflexed and moves with each inspiration in walking, singing, deep breathing, etc. When the bladder or the rectum is distended there is also some variation in the position. When a wide variation from the normal position is noted it is considered pathologic and we designate it as a displacement.

I will not discuss anteflexion or anteversion because while they are often described the symptoms are not very clear and many surgeons claim that there are no real patholgical cases of either of the above mentioned conditions. Tumors pressing the uterus forward might cause it, but the true uncomplicated cases are extremely rare.

RETROVERSION AND RETROFLEXION.

These two conditions are generally considered together because retroflexions alone is extremely rare.

Retroversion pure and simple is a condition in which the long axis of the uterus is directed back so that the fundus lies in the hollow of the sacrum.

Associated with a retroverted uterus there is always some descent of the same and this tends to weaken the pelvic floor.

Retroversion is most commonly found in women who have born children, however many times the condition is formed in unmarried women.

ETIOLOGY OF REVERSION.

The cause of retroversion is either congenital or acquired. The best classification of the cause of the acquired condition is

1st: Pressure from above. such as any sudden intra-abdominal pressure caused by lifting or a sudden fall.

2nd: Traction from below. This is best illustrated by the contracting cicatrices often resulting following a vesico-vagina fistua.

3rd: Increased weight of the uterus. This may be due to a condition of subinvolution, tumor growths, etc.

4th: Adhesions. These often follow a pelvic peritonitis and tend to pull the uterus back.

SYMPTOMS.

Uncomplicated cases of retroversion often cause no symptoms and are only discovered when one is examined for other pelvic trouble. While retroversion may be present we often find that the pelvic symptoms are referable to some other cause, Ex Metritis. It has been estimated by some authors that about 25% of women who complain of no pelvic trouble have displacements.

When the symptoms are due to a retroversion we may have the patient complain of any of the folowing ones. Bearing down pelvic pains, weakness or pain in the back or groin on any exertion or when doing ordinary work. Menorrhagia, mentorrhagia, dysmenorrhoea, leucorrhoea, a tendency to abortion, sterility, constipation, at times headache and neuralgia are present, also dyspeptic symptoms. It is unnecessary to go into the cause of all these different symptoms for as we all know they are not all present in every case, sometimes a number are present, at other times only one. For example, sterility. We often have no other symptom and only make our diagnosis of a retroverted uterus when we make our vaginal examination.

Diagnosis. In making our diagnosis there are a number of pathologic conditions that must be first excluded, the principle ones being: 1st. Tumor in the posterior wall of the uterus. 2nd, prolapsed ovary. 3rd, ovarian tumor. 4th, dilated and prolapsed tube. 5th, exudate in Douglas pouch. 6th, feces in the rectum. If we are able to exclude all the above mentioned conditions and we determine we are dealing with a retroverted uterus pure and simple we must decide whether the fundus is adherent or not.

If a bimanual examination fails to give us this information an examination in the knee chest position will often help us in clearing up this point.

The cervix also plays a part in helping us in making our diagnosis, as its normal distance from the vulva is from 2½ to 3 inches. When making a vaginal examination we find it an inch or an inch and a half from the vulva, a displacement often suggests itself before we find the fundus in the cul-de-sac.

When we find a cervix displaced downward and outward with the fundus in the cul-de-sac in the absence of complications our diagnosis is generally an easy matter.

TREATMENT.

As mentioned above every case of retroverted uterus should not be operated upon. If we exclude all other troubles we must then take into consideration whether the uterus can be replaced or not and whether the woman is still in the child bearing period, often during this time when the condition is not extreme, it is better to wait and many women prefer to wait until they have a family for fear the retroversion may recur.

Often in these cases where women have born children there is associated with the displacement a perineal tear which would make non-operative treatment a useless procedure, but where the perineum is firm and the uterus easy to replace, often the use of a pessary for three or four months combined with the patient assuming the knee chest position every morning and evening for a number of minutes will correct the displacement.

In women who have never borne children the pessary will often effect a cure, providing the uterus can be replaced either bimanually or with the patient in the knee chest position.

Following labor there is a displacement present in many cases but this condition at this time generally corrects itself. Because this condition is present so often it should be the routine practice of all obstetricians to examine a patient four or five weeks following labor and if a displacement is present to correct the same and introduce a pessary. This treatment generally effects a cure.

In cases of acute retroposition following an accident (our attention having been called to the same on account of pelvic pain) the uterus should be immediately replaced and a pessary introduced.

RETROPOSITION DURING PREGNANCY.

In these cases the uterus probably was returned before it became pregnant but sometimes the increased weight causes the displacement. This condition often corrects itself between the tenth and fourteenth weeks but if it does not the patient is very apt to abort or the fundus may become incarcerated under the promentory or the sacrum which may later require operative interference.

In this condition circulatory disturbances may accompany the displacement. These may cause an endometritis which induces the pathological changes in the decidua which is the cause of the abortion.

OPERATIONS.

As we all know there has been almost as many operations devised for the correction of this condition as there are operators, and the possibilities of using the different ligaments of the uterus for suspending the same are still unlimited. I will have time to mention only a few and will describe the operation that I believe most nearly replaces the uterus into its normal position in the pelvis whose chief advantage is that its technique is very simple and that it accomplishes its purpose with the least possible traumatism to the uterus or its supports.

Before describing this operation

which may be familiar to you all, I will speak briefly on a few of the others commonly employed.

The Alexander Adams operation has always been a favorite with many operators but it has this disadvantage in that the operator does not have a chance to view the pelvic organs and therefore may overlook some other pathological condition that is present. It used to be considered the safest operation but in this era of aseptic surgery the danger of opening the abdomen is so slight that it does not count for much. Suspension of the uterus to the abdominal wall has been largely discarded, the weight of the uterus is almost certain to cause the adhesions to stretch out and this band has often been the cause of obstruction.

The operation of fixation of the fundus to the vagina wall has the disadvantage that it should never be done during the child bearing period unless a resection of the tubes at their external junction is also done.

The operation I prefer is the one known as the Andrews' or hammock operation. After the abdomen is opened the uterus is grasped with volsellum forceps and drawn forward. A small forcep is passed from behind through the broad ligament directly under the tube at its junction with the uterus, at this point the bleeding is practically nil. The round ligaments are now grasped about from one to one and a half inches from the uterus, depending upon the case, and drawn through the opening in the broad ligament to a point in the median line of the posterior surface of the uterus about ½ inch below the fundus. The two round ligaments are now sutured together and to the body of the uterus. This completes the operation above if a perineal tear is present this is of course repaired.

To my mind this operation more nearly returns the uterus to its normal position than any so far devised. One danger exists and that is of suturing the round ligament too far down on the posterior surface of the uterus. This will throw the fundus too far forward and may cause some pressure on the bladder.

Following this operation where the fundus is large due to the displacement there may be slight pressure on the bladder for a time but as the uterus resumes its normal size this symptom disappears.

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THE SPORT'S SKULL.

By Grace M. Ashton, M. D.

This grinning skull which here you see
was once a skull of high degree;
A gay and festive man was he,
Who ne'er had know adversity.

Tall and stately, with dark brown hair,
A dashing mustache and winning air;
His feet they covered a wide expanse,
O'er shadowed by his white duck pants.

In a sweeping gallop he went through life
Heedless of fate, the dissector's knife.
He shuffled the cards—and the dice he threw;
Played the races and went broke, too.

And when the toboggan, this sport he struck,
He lost his nerve and was down in his luck;
Took free lunches and numerous beers.
So he took to drinking the cup that cheers,

And at last pursued by Relentless Demons,
He died in the throes of Delirium Tremens.

This poem was written when the author was a medico of the first year. Recently these verses were found among some old college papers and the writer on the impulse of the discovery decided to send the same to the editor of the best middle west medical journal, and ask that a little space be granted to the sketch and lines; that she takes the chance of being censured, and personally taken to task by letter from some of the profession, but in face of this, has the courage to stick the stamp and mail the letter containing the true story of one human skull and its moral.

OPHTHALMOLOGY and OTO-LARYNGOLOGY

Conducted by
J. P. THORNE, M. D.,
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EFFECTS OF SALVARSAN ON THE AUDITORY NERVE.

Dr. Alfred Barnes of New York City writes in the American Practitioner on this subject:

Permit me to call the attention of the profession to the danger of impairing the hearing, by giving an excess of salvarsan. The hearing of forty-seven patients who received the drug, mostly intravenously, was tested. Of this number six have become hard of hearing. Before they received the treatment their hearing was normal. In four of the cases the aural disturbance was not noticed until the second injection had been given.

Arsenic, like all other powerful drugs, is highly injurious if the proper dose is exceeded. There can be no question that salvarsan is immeasurably superior to any other drug for syphilis. The knowledge that one dose is insufficient to effect a cure has led to the repeated and often indiscriminate use of the drug. Therein lies the danger.

It seems illogical to give the same dose of so dangerous a drug as arsenic to all syphilitics, without respect to age, weight or tolerance, when we all know that certain individuals have a decided idiosyncrasy for it. The organ that is especially susceptible to its influence is the delicate and highly sensitized organ of hearing. Other drugs that have a selective action upon this organ are quinine and the salicylates. When these drugs are given in excess, the ears begin to buzz, and frequently this buzzing remains, and is the prelude of a progressive deafness.

It is perhaps fortunate that much of the salvarsan that is thrown into the circulation when given intravenously is rapidly eliminated by the kidneys. In this way its toxic effect upon the system is lessened.

In all of my cases the onset was the same, that is, in from a week to a month after the injection head noises were perceived. In proportion as the noise grew louder the hearing became poorer. In two instances the noise is now subsiding, but alas! the deafness fails to improve.

An examination of the ears and adnexa of these patients revealed no morbid changes. Hearing tests showed diminished aerial and bone conduction, especially for the high tones. The caloric tests showed dulled labyrinthian response. There are no symptoms of middle ear or internal ear irritation, such as pain, dizziness, vomiting or nystagmus. The symptoms of the patients are those of a lesion affecting the auditory nerve.

I would suggest that the hearing be tested each time before giving salvarsan. If it is poor, or if head noises are present, the drug should be given with caution, and if the hearing is affected by the salvarsan, it should not be repeated until the ears are normal.

HONESTY TO YOUR PATIENT.

An article in the Optical Journal on the subject of honesty although written for opticians is also very applicable to physicians. The writer, W. E. Woodard, says:

In closing I will say that I once heard of a three-cornered debate on the subject of what held the greatest power in the world. One of the contestants held

that money represented the greatest power because it would purchase all things that man generally desired for the puropse of obtaining happiness. Another said that in his opinion woman reperesented the greatest power because of her well known ability to influence men and through her influence over man she could, and actually had swayed the very destinies of nations. The last one to take up the subject agreed that money had power to purchase good things, but that it was also many times used for purposes that were not good. That while woman undoubtedly had great power, the fact remained that she was but human and therefore likely to err. Truth, he said, could not possibly work any one ill, was divine in its origin and therefore was by far the greatest power in the world.

When all is said, nothing compares with the mighty force of truth. Other things are but mortal, and being mortal are doomed to perish, but truth in its divinity stands for eternity. The whole world calls for it and heaven blesses it. The works of man, unless they be founded upon it, shake and tremble at it. It alone knows of no unrighteousness.

Build your practice on truth and honesty, and you will have builded well. If not, you and the ones dependent upon you will surely be called upon to suffer the consequences—'As ye have sown even so shall ye reap.''

I have in mind at present a grand old man of the profession who has been practicing in this city for over a half a century. His name is a synonym for honesty. He is loved by a public that has come to know him well. Truth and honesty in all his dealings have crowned his efforts with success in every form; health, long life, wealth and last and most to be desired, an honorable name. Such a man should be an inspiration, for what he has accomplished is within the reach of us all.

On the other hand there is honesty and fair dealing with the splendid reward that they assure us; on the other there is trickery and deceit, with their lying promises, seldom fulfilled. Would you have your efforts crowned with success and your old age made happy, or will you let a few paltry dollars that you may obtain by unfair methods now pay you for the dishonor and misery that will be sure to follow?

Which in your mind pays best? The question is yours to decide.

SCARLET RED.

As this preparation is being used more extensively in therapeutics much is being learned about its action.

It is a valuable agent but should not be used in too great strength. The best results are obtained from a 4 per cent preparation. E. Merck in his annual report says:

Scarlet Red, as is well known, was used with good results by Schmieder and Morawetz for ulcers of the leg. Wehner uses for this purpose not the 8 p. c. ointment as this often gives rise to irritation so that erosions or even ulcers appear between the newly formed epithelial islands, but a 4 p. c. ointment prepared according to the following prescription: Rp. Scarlet red 4.0 grammes (60 grains) tere cum chloroformo q. s., Ung. lenicet and 100.00 irammes (3 1-3 oz.). This can be used without fear for 3 days. U. Pavia also found that in the after treatment of radical operations on the middle ear the 8 p. c. ointmnt gives rise to irritation and he therefore uses the drug in powder form. He prescribes: Rp. Scarlet red 1.0 gramme (15 grains), acid boric, pulv. 9.0 grammes (135 grains). After cleansing the cavity with cotton wool and cauterizing any exuberant granulations which may be present, this powder is insufflated and a loose sterile strip of gauze is introduced.

MATERNITAS

By CHARLES E. PADDOCK, M. D.,
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(Continued for Page 30 January Recorder)

HYGIENE OF PREGNANCY.

A woman who is about to become a mother should have the most careful consideration from her physician. Pregnancy is supposed to be a normal process, but there are few women who are entirely free at this time from some physical complaint. Pregnancy has been defined as "a disease of nine months' duration," and when the changes taking place in the entire female organism are considered, it seems no wonder that it is so interpreted. Every part of the body is affected by the reproductive stimulus. For instance, to supply nourishment to the growing womb and its contents, the heart must do increased work, as it is through the blood that the fetus is supplied with food and oxygen. Then increased heart action is accompanied by an increase in the functions of the kidneys and those organs, in order to perform their work, become necessarily enlarged. Even the glands of the skin are stimulated and aid the kidneys by eliminating through the openings or pores some of the waste products of the bodies of both mother and fetus. The womb itself does not expand like a balloon, but grows by an increase in the number and size of its muscle fibers. The adult non-pregnant uterus weighs about two ounces, but immediately after delivery, while the emptied womb is contracting, its weight is from two to three pounds.

Much attention is nowadays given to the special hygiene of pregnancy. Physicians have learned from experience that the better care we give the pregnant woman, the easier her labor, the quicker her recovery, and the healthier her offspring. At first the restrictions may be somewhat irritating to the patient, but though she be compelled to deny herself many old pleasures, she may soon find new ones, which more than make up for those lost.

Diet.—There is no reason why the diet should be changed much during pregnancy, providing it has always been wholesome, causing no disturbance of digestion. There may be a desire for a more generous amount, or there may be a craving for some article of food which was formerly distasteful. In the later months of pregnancy the amount will necessarily have to be increased, but care must be taken not to attempt to satisfy an abnormal appetite. Any craving for certain articles may be satisfied, providing they are harmless.

A simple and substantial dietary comprises meat once a day, vegetables, eggs, cereals, stale bread and plenty of fruit and milk. These contain all the nourishment which is needed by a pregnant woman. Fresh fruits, such as apples, oranges, grapes (with seeds removed), grape fruit, are particularly desirable. Water should be drunk freely every day. Besides milk, cocoa and chocolate are recommended. Tea or coffee may be taken once a day, but a cereal coffee is much better than either. Pastries, cake and candy should be avoided.

The heavy meal should be at noon, the supper a light affair, consisting of milk, cereals, toast, custard or ice cream. There is great danger of overeating, and it is much better to leave the table hungry than with an overloaded stomach.

Frequently the pregnant woman has a sensation which she will describe as a feeling of emptiness of the stomach, "a goneness in the stomach." This is and it may be accompanied by faintness. At such a time a glass of milk drunk slowly or a crust of bread will

suffice to correct this disagreeable sensation.

The evil effect on the offspring of the immoderate use of alcoholic beverages is too well known to need discussion.

Over-eating and errors of diet often result in unduly increasing the size of the child before birth. The amount of fat in the abdominal wall and in the pelvis of the mother is increased and thereby the progress of labor is hindered. A special diet is sometimes ordered in cases where, in previous pregnancies, the child has been abnormally large. It is only in exceptional cases, however, that such a diet will be needed, provided the above advice regarding diet is religiously followed. Of course the physician will modify the diet to suit the special case.

Clothing.—A desire to conceal her condition and preserve her figure sometimes causes the pregnant woman to continue wearing her corset almost to the last, and it may be difficult to convince her against her will that she is doing both herself and the babe a real injury.

Tight-lacing interferes with the growth and development of the child, produces malpositions of the womb, and often interrupts gestation. No woman who has any regard for her children's health, to say nothing of her own, will resort to the practice of tight-lacing at this or at any other time.

That the corset is the cause of floating kidneys and a general prolapse of the abdominal organs is a well recognized fact, and constipation, indigestion, gall-stones, headache are but a few of the ailments which can be directly attributed to the wearing of such a garment.

At present a low fitting corset is the most popular one and really has many good qualities. Instead of crowding the abdominal contents downward it rather lifts or supports them. This style of corset also leaves the breast free, only supporting them from below without making any compression.

The author would recommend this corset to the non-pregnant woman who prefers such a garment to one of the reform waists, the latter being, however, much better and healthier than the corset.

Fashion will soon decree that this low fitting corset must give way to another and probably one that will not be an improvement either as far as comfort or health are concerned.

The corset frequently worn by the non-pregnant woman, and sometimes continued as a garment in pregnancy, is the old style imperfectly fitted corset which laced tight at the waist line. Because of its use, the contents of the lower abdomen are crowded downward and backward, the womb is displaced, the function of the liver is interfered with and permanent injury to that and other abdominal organs results.

As soon as the fact of pregnancy has been ascertained, the corset, if worn, must be discarded for either one of the dress reform waists, such as the Ferris, Jenness-Miller, or Equipoise waists, or for a maternity corset, which permits no constriction and yet offers support to the growing womb. The corset or waist is hung from the shoulders, and to it the skirts may be atached. The skirts must either have straps which pass over the shoulders or be attached as mentioned, the idea being to take all weight from the abdomen.

Wool should be worn next to the skin, the weight to correspond with the season.

Is certain cases where the abdomen is quite pendulous and heavy, an abdominal supporter will often furnish marked relief. This can be worn underneath the waist. Especially is this

serviceable for women who have one or more children.

Low-heeled shoes must be worn. High heels cause much of the backache from which women suffer, especially during pregnancy.

Constrictions about the body anywhere must be removed, as the circulation is impeded by them. Even the band garter must be replaced by side elastics.

The Bowels.—Since, as a rule, women suffer considerably from constipation it is hardly to be expected that they overcome the habit during pregnancy, unless by following a strict regimen directed against that tendency. The usual causes of constipation in women are improper diet, lack of exercise and constriction of the abdomen by clothing. Following the general rules of hygiene in pregnancy, as prescribed in these pages, will sometimes cause the bowels to act more readily. The following suggestions are made for those chronically constipated:

Evacuate the bowels at a regular time every day. There should be no straining. If the effort is not successful, a glycerin suppository or a low enema of water may be used. However, the habit of taking enmata is to be avoided.

In addition to the diet mentioned, it is well to take cracked wheat, oat-meal, farina, graham and rye bread or biscuit. New bread or hot biscuit should not be eaten. The strong craving for fruit, which frequently exists, may be thoroughly satisfied, provided that no digestive disturbance arises therefrom. Apples, oranges and grapes without seeds are the best. The seed fruits, strawberries, blackberries, etc., are not considered suitable in cases of constipation, and bananas should not be eaten because of their constipating effect. Some patients may not be able to properly digest fresh raw fruit, but can well take care of stewed or cooked fruits, particularly baked apples. Canned or preserved fruits are not suitable, because of the large amount of sugar they contain.

Upon getting up in the morning drink a glass of cool water and eat an orange or an apple. This may also be done at bedtime.

Drink plenty of water between meals.

Masticate thoroughly all food. Even milk should not be swallowed till thoroughly mixed with saliva.

If, in spite of all these precautions, constipation persists, resort must be had to drugs. Cascara Evacuant in doses of fifteen drops, three times a day or one-half to one teaspoonful at bedtime usually is effective. It can be alternated with Hunyadi water or Tarrant's Seltzer Aperient.

Morning Sickness.—In the minds of many women the morning sick stomach is inseparably connected with pregnancy. As a matter of fact, however, this experience does not always accompany pregnancy, although in the majority of cases there is more or less of it. The nausea is usually experienced in the early morning, or as soon as the patient arises from bed. If it be mild and lasts only a few minutes, there is usually no necessity for treatment, but if it continues, or occurs several times a day, with the loss or refusal of meals, the physician should be notified.

Heart-Burn.—Acid eructations frequently occur accompanied by a sensation of burning, extending from the throat to the stomach. Accompanying pain may be severe, passing through to the back. Often there will be considerable tenderness over the stomach. These conditions are frequently due to some error of diet or to constipation. For immediate relief, one-half teaspoonful of bicarbonate of soda, with at least half a glass of water, may be taken, or one of the effervescing alkaline mineral waters drunk after or during the

meal. Calcined magnesia is also useful. A continuation of this condition should lead the patient to consult her physician.

Exercise.—A certain amount of exercise is necessary, but the woman who has never taken any, cannot expect to make an athlete of herself at this time. She should refrain from exercise that is too fatiguing. On account of the increased amount of work which, as we have already stated, the heart is called on to do, care must be taken not to overtax that organ by any indiscretion. Injury might thus be done both to the mother and her developing baby. Walking is benefiical and should be a daily habit, but must not be carried to the point of fatigue. Driving in an easy carriage over smooth roads is permissible. Long railroad journeys or long automobile trips over rough roads are dangerous. Straining in any way, by lifting or otherwise, bicycling, horseback riding, climbing stairs rapidly or several times a day, and sewing on a machine should be avoided. Swimming, dancing, running, tennis or golf are not allowable.

General massage should be taken by those unable to exercise in other ways. The masseuse must avoid the abdomen and the breasts.

Keep out of crowds. In daily outings, go towards the parks rather than to down-town streets and shops. An occasional evening at the theatre is a diversion and is harmless, provided the play does not excite undue emotion and is not given in a crowded, poorly ventilated building.

Fresh Air.—All rooms occupied by pregnant patients should be well ventilated and have plenty of sunlight. Beyond the usual raising of windows, an open fireplace affords the best ventilation.

The Bath.—The bath is of great importance during pregnancy. Since the activity of the skin is increased, it needs more attention in order to maintain its function as an excreting organ. The temperature of the bath should be agreeable to the skin, neither too hot nor too cold, somewhere about 90° F. cold showers, surf baths, sitz baths, or very hot baths are not to be taken; any of them might terminate pregnancy. The bath, by keeping the skin in a healthy condition, relieves the kidneys of much work and also aids digestion.

The bath is generally taken in the morning, either before breakfast or midway between breakfast and lunch. It should never be taken within two hours after a full meal. A warm bath may be taken at night if the patient is restless. It will secure repose and sleep.

The Kidneys.—Much regarding the health of a patient can be ascertained by a careful examination of the urine; therefore, every two weeks during pregnancy three or four ounces of urine should be sent to the physician in a clean bottle, properly labeled. A twenty-four hour specimen should be analyzed occasionally, and is obtained as follows: At seven o'clock, or at a stated time in the morning, the bladder is completely emptied and the urine thrown away. From this time on all urine that is voided, together with that passed at seven the next morning, is saved in one vessel; the total amount is measured, and a sample of three or four ounces taken from this mixed quantity. The sample is then sent to the physicias, marked as follows:

For Dr. .....

From Mrs. .....

Twenty four hour specimen. Total ....ounces.

That these samples should be sent to the physician is imperative. His other duties often prevent him from asking them, and therefore every mother must take upon herself the responsibility of following up this matter.

Irritability of the Bladder.—By pres-

sure the growing womb often causes disturbance in the functions of the bladder, the patient having to urinate with annoying frequency. There are two periods when this is most likely to occur; either in the third or fourth month of pregnancy, or in the last week or two before confinment. There is not much that can be done to relieve this symptom. Resting on the bed in the knee-chest position, that is, kneeling with the hips as high as possible, and the chest, shoulders and head close down on the bed, remaining there for a few minutes at a time, will often give temporary relief. In the latter weeks wearing the abdominal supporter will remove some pressure from the bladder, and thus relieve the irritability.

Hemorrhoids.—Hemorrhoids are frequently quite annoying and appear in the last weeks of pregnancy. If due to constipation, a frequent cause, a correction of this will suffice. For immediate relief from pain the application of hot fomentations or witch hazel compresses, is often sufficient. Whatever the cause, a physician should be consulted.

The Douche.—Many women believe that during pregnancy the vaginal douche should be taken as a daily or weekly practice. That this douche often does more harm than good is apparent to physicians; much of the pelvic distress from which women suffer being due to its too frequent use. It is impossible to insert the douche point as ordinarily done without carrying infective material into the vagina. After all, there is no good reason for the use of the vaginal douche during pregnancy, unless there be an acrid and irritating discharge. In that case treatment under the direction of a physician is necessary.

The Breasts.—During pregnancy the surface of the breast should be washed daily, either with a liquid soap or castile soap and warm water, then rinsed in cold water, and the last two months the nipples anointed with cocoa butter. Alcohol, which is so generally used, is an irritant. Sometimes a lotion, instead of the cocoa-butter, may better be used for a short time, the formula being:

Glycerite of tannin, half an ounce;

Compound spirit of lavender, half an ounce;

Water, three ounces.

If the nipples are flat, a gentle attempt should be made daily to draw them out.

If the breasts are large and heavy during pregnancy, some form of supporter should be used.

A month or two after the beginning of pregnancy, the breasts begin to enlarge, usually slowly, but sometimes the change is quite rapid. This enlargement is accompanied by a tingling or slightly painful sensation. Also about this time the skin around the nipple becomes quite dark, forming a ring or areola, one to one and one-half inches in diameter. Later, due to the stretching of the skin, there may appear on the outer surface of the breasts shiny lines or "striae," especially on the lower and under side of the breast. Attention is called to this fact, because of the alarm it sometimes causes the patient, and because the physician is sometimes blamed because of these marks. They are harmless and cannot, as far as known, be prevented. The presence of these variations from the normal breast is strongly suggestive of pregnancy, especially in a woman who has never borne children.

Care of the Teeth.—The rapid decay of teeth which sometimes occurs during pregnancy is probably caused by acid eructations, the result of characteristic increase in stomach acidity during the first months. The fact that the mother must furnish the mineral matter necessary to form the tissues for the child

may also partially account for such decay.

A dentist should be consulted frequently, and the cavities temporarily treated; severe and painful dental work being avoided. The writer knows of nothing so efficacious in arresting this decay of the teeth as milk of magnesia, lime water or a solution of bicarbonate of soda, a teaspoonful of the soda to a glass of water. One of these should be used as a mouth wash after each meal and at bed time, the remedial substance being thoroughly forced between the teeth.

In some cases the saliva becomes markedly increased during pregnancy, the hyper-secretion being often quite annoying. This is not a severe complication, usually being due to some error in diet, which should be corrected.

Swellings.—Enlarged veins which show upon the surface are common in pregnancy. They are usually found upon the legs and occur as a rule in women who have not taken the best care of themselves. These varicose veins often occasion a good deal of pain, itching and burning. The preventive treatment is the early abandonment of the corset, of tight waistbands and of circular garters. The active treatment is rest with the feet elevated, and skilful bandaging. Under no circumstances should a vein be punctured with a pin or needle.

Edema or swelling of any part of the body must be reported to the physician. While this symptom may mean nothing, it usually calls for treatment. Sometimes a pregnant woman says to her physician: "My feet are so swollen I had to put on my husband's slipeprs." This is a significant fact, and generally under the circumstances she should be in bed and under careful treatment. A few days of rest and diet will usually suffice to corect the condition.

The pressure of the growing womb sometimes causes stagnation of the venous circulation which in turn produces a generalized swelling of the lower limbs. Occasional rest in bed will relieve this trouble.

Mental Conditions.—For some unknown reason, the laity have the idea that unborn children can be marked by the psychic impressions of their mothers, and that occasionally they are so marked. Some accident which the woman has witnessed during pregnancy, some deformed, or ugly person or some strange animal which has happened to cross her path has, they say, been photographed and may be reproduced in the unborn child. A little reflection shows how absurd this belief is. If the theory were true, nearly every child, since nearly every prospective mother has seen strange sights, would be deformed.

The sooner this subject is dismissed from the mind, the better, for there is nothing upon which we can scientifically base such a belief.

Keeping one's self, however, in a happy frame of mind, reading good books, enjoying beautiful music and pictures, all tend to affect mind and body favorably, and to a certain extent indirectly have a healthful influence upon the child.

As regards heredity, maternal influence is of more importance than paternal. Education, morality, temperance, health in the mother, are apt to be manifested in the child. This being the case, the mother should not wait until the beginning of pregnancy to cultivate her physical and mental qualities; her culture for childbearing must come through previous years of training.

(To be Continued.)

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It is announced that Chicago physicians are planning to erect a monument to the late Dr. Nicholas Senn. It is reported that already about $12,000 has been pledged.

MISCELLANEOUS

606 AND THE TREATMENT OF SYPHILIS.

By Dr. Edward T. Alford, Waterloo, Iowa.

Attending Surgeon to Presbyterian and St. Francis Hospitals

(Continued from Page 26 January Recorder)

In regard to the mode of administration, the intravenous method is the one that has been universally adopted, it being eliminated from the body in a few days, making it possible to repeat the dose safely at an early period. The subcutanous and intramuscular injections have been almost entirely abandoned for the reason that the intravenous administration is free from pain, from local necrosis and sloughing freuently noted as well as paralysis and neuritis, sometimes following their injection near a large nerve trunk as the sciatic nerve in gluteal injections and because there is no local depot formed for slow absorption. Great stress has been laid upon the employment of freshly double-distilled water, which should be boiled just before using as many unfavorable results were noted where old-distilled water was used. Double strength saline solution is usually employed or saline solution not less than eight-tenths of one per cent or more than one per cent, as a hypo-tonic solution is more dangerous than a hyper-tonic, because the former causes haemolysis. Should this happen, the patient may collapse after injection and there may be haemogobinuria. Everything used in the preparation should be absolutely sterile.. The Sodium Hydrate should be boiled before being used and only chemically pure sodium-chloride (Merks) should be employed in preparing the saline solution. The temperature of the solution should never be above that of the body. The patient receiving the injection should always be confined to bed for a period of twenty-four to thirty-six hours. The injection should never be given in the physician's office or to ambylatory patients.

They should be under close supervision for a period of twelve days following. The patient should be prepared generally and locally as for a surgical operation. The injection is usually followed by one or two chills; the fever ranging from 100 to 104; the patient frequently feels very sick, and may vomit. These symptoms, however, usually last but a few hours in the large percentage of cases, but occasionally there is headache, cholic, diarrhoea and great prostration. A toxic cutaneous rash has been frequently observed, and sometimes the individual lesions of secondary syphilis become more prominent, larger and redder, a phenomena known as Herxheimers reaction.

As a rule, the symptoms are not severe, and pass off in a short time. In some cases, however, acute collapse has followed. In others immediately after a second injection the patient has developed alarming symptoms resembling those seen in hyper-sensitiveness to serum. The face swells and becomes a dusky red, the pulse is rapid and feeble, and there is marked dyspnea, probably due to a special idiosyncrasy of the drug. Old preparations of the drug are not to be used, or those that have been exposed to the air for any length of time.

Practically all drugs with a specific action are poison, and the relative curative powers of a drug to its toxicity determines its value. The toxic action of Salvarsan has not escaped notice. Cases are reported dying from three to fourteen days from symptoms identical with those of acute arsenical poisoning. Venous thrombosis occasionally follows the injection, but as a

rule this passes away in a few weeks, without any trouble. Cases are reported, however, where the thrombosis became detached, causing sudden death from pulmonary embolsin and from central pneumonia, following embolism. Extensive parenchymatous degeneration of the liver and kidneys have been noted in cases of fatal poisoning, following injections, and a nephritis of a varying degree occasionally associated with albuminuria and others complete anuria have been frequently noted.

Cerebral irritation has been frequently observed, as mental confusion and excitement convulsions, epileptic attacks, unconsciousness and death. Many cases of blindness, deafness and facial paralysis affecting the other cranial nerves. The second and eighth nerves are the ones most frequently affected and as a rule become involved from six to eight weeks after an injection. These are explained by some, as being due to the disease, as nerve relapses, and by others, as a direct toxic action of the drug. Ehrlich explains these cases upon a ground of an incomplete sterilization whereby the Spyrochetes in certain avascular tissues escape. The subsequent proliferation of the surviving Sprochetes induce local relapses which in case of nerves, running through bony channls, often produce paralysis. In support of Ehrlich's view, renewed antisyphilitic treatment in many cases rapidly cured these symptoms, while other observers, especially Finger, maintains that Salvarsan has a direct damaging action on the nerve tissue and as many such cases are uninfluenced by renewed treatment, the toxic action of Salvarsan cannot be excluded. The list of deaths and accidents following its use, is a long one, and the complications many. These are explained by the enthusiastic supporters of the drug as being due, in a large extent, to the disease and by others to the drug.

Among the absolute contra-indications to the use of the drug, the majority of observers include the following: Cases suffering with organic heart lesions, especially those involving the aortic valve, as aortic insufficiency, or stenosis, whether compensated or not. Cases suffering with aneursym. Cases with disease of the heart muscle, as myocarditis or angina pectoris. Artertiosclerosis of the peripheral blood vessels. Disease of the central nervous systems, affecting vital organs, especially when associated with degenerated changes. Cases prone to cerebral hemorrhage. Cases with retinal and optic nerve lesions. Advance cases of pulmonary disease (excepting tuberlosis). Cases with renal diseases, diabetes, gastric ulcer and chronic alcoholism. Diseases associated with fever. (acute infectious diseases, cachexia, chronic debiliating diseases and old age). Pregnancy during the last four or five months and cases previously treated with other arsenical preparations, as well as cases showing any viceral disease whether syphilitic, or not, involving organs of vital importance, as the liver or spleen.

The new preparation, 914, or Neo-Savarsan is a very soluble form of Salvarsan. It is claimed to be fully as effective as the old remedy and possesses certain decided advantages in that it is extremely soluble in water and as the product is neutral when in solution, the neutralization with costic soda is not necessary, thus eliminating the technical difficulty of preparing 606. The tolerance to the drug is also greater than 606, which permits administration in much larger doses and at shorter intervals. Four doses are usually administered at intervals of twenty-four hours. Nine-tenths of a gram for the first dose, 1 2-10 of a gram for the second, 1 35-1000 gram for the third and 1 5-10 grams for the fourth. This equals 6 grams of Neo-Salvarsan and is equal

to about 4 grams of Salvarsan, within one week. Owing to the less irritating properties of the drug, Neo-Salvarsan can be more readily used intramuscularly; for this purpose 9-10 of a gram is dissolver in 30 c. c. of water. Several c. c's. of a 1% solution of Novocain are first injected several minutes after without the withdrawal of the needle. Local edema has been observed after its use, but seldom infiltration or necrosis. Its effect upon the cases used were as prompt and efficient as Salvarsan. Judging from the reports its toxic action is not so pronounced. A slight elevation of temperature, drug rashes, traces of albumen in the urine, vomiting and diarrhoea have been noticed folowing its use, but these were slight and persisted for a short time only.

If the solution of Salvarsan has been properly prepared and one is familiar with the technic of its administration in a case free from kidney, liver, circulatory or disease of the central nervous system, Salvarsan would be indicated in the early stages of the disease, especially in the primary and early secondary stages. It must be borne in mind that the efficiency of the drug is in direct relation to the age of the infection. Mercury must always be called into use in connection with the case, and several courses of mercurial inunctions should follow. By its rapid destructive action upon the Spyrochetes in chancres, mucous patches and Condylomata, those who have syphilis are rendered less infectious and others are protected, thus tending to prevent its extension. In the florid stage of this disease, and in those cases with pronounced ulceration of the mucous membranes, of the nose, mouth or throat, where the result of destruction of tissue it to be feared, and where intensive treatment is desired, 606 would be indicated, because in combination with mercury its effect is more rapid than mercury alone. In malignant syphilis where mercury has been given for a long time without apparent effect, the result following its use is wonderful, in that it causes the manifestation of the disease to rapidly disappear.

It must be remembered, however, that it is a symptomatic remedy, that it does not cure the disease any more than mercury, that its use is not free from danger, that it has caused many cases of fatal poisoning, that deafness, blindness and facial paralysis are not infrequent after its use, in apparently healthy individuals. That mercury alone given properly is more free from danger, and that given properly, that is by inunctions, is nearly as rapid and in most instances just as effective in its results as Salvarsan. That mercury given by mouth is least effective, in fact almost ineffective in eradicating the disease, and tends to promote an immunitative to the drug which leads to the later para syphilitic, manifestations, as paresis, tabes, or other serious disease, and, therefore, should be condemned. This conclusion has been shown to be a fact by the results obtained in cases so treated and observed by the Wasserman reaction and by the history of such cases who present themselves for treatment in which, in almost every instance, a history of two or three years of internal treatment will be obtained.

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EXTERMINATING LICE IN PATIENTS.

Whitfield (Lancet, Dec. 14, 1912) recommends steeping the hair for ten minutes in a 1:400 phenol solution, taking care to see that the nape of the neck and the hair over the ears are well soaked. The patient lies on her back with the head hanging over the edge of the bed, the hair in a basin. After ten minutes the hair is wrapped, without drying, in a towel for an hour.

MAGNESIUM SULPHATE.

By J. A. Burnett, M. D., Hartshorne, Okla.

In many cases magnesium sulphate acts better in combination with other remedies than when given alone. Dr. D. S. Brockway says when the plain salts cannot be retained he has found the following to agree with the most delicate stomach:

℞

Magnesium sulphate .....ʒ ij
Tartaric acid .....ʒ j
Tr. cardamom comp. .....ʒ iv
Aqua q. s. ad. .....℥ iv

Sig.—Two tablespoonfuls every two hours till the bowels act freely. In some cases four tablespoonfuls can be given for the first dose or two.

When an acid is given with Epsom salts it has more influence on the stomach, liver and bowels. A palatable Epsom salt can be made by using 10 to 20 grains of citric acid to a tablespoonful of salts. Always use enough citric acid to give the salts a decided sour taste. The following is a good formula:

℞

Magnesium sulphate .....1 lb.
Coffee roasted and ground ..2 oz.
Hot water .....1½ pt.
Saccharin .....10 gr.
Oil anise .....30 drops
Alcohol .....1½ oz.
Ext. vanilla .....60 drops
Citric acid .....¾ oz.
Tr. cudbear q. s.
Water q. s. ad 2 pts.

Add the coffee to the hot water, allow to stand 15 minutes, pour off and then add the salts, saccharin and vanilla. When cold add the oil of anise previously dissolved in the alcohol, then add the citric acid, tincture cudbear and water sufficient to make 2 pints. Citric acid is a very important remedy and often very useful in combination with Epsom salts.

Dr. H. B. Hemenway has a valuable article on "The Therapeutic Use of Citric Acid and the Citrates," Jour. A. M. A., April 6, 1912. He considers citric acid or the citrates indicated in congestion that interferes with protection and contra indicated when congestion is protective.

Dr. W. H. Vose makes a palatable Epsom salt as follows:

℞

Magnesium sulphate .....2 lb.
Fld. ext. cascara aromatic...1 lb.
Syr. yerba santa .....1 lb.
Syr. simplex q. s. ad.....5 pts.

Mix the salts with one pound of syrup and dissolve by heat. Strain through cheese cloth, add other ingredients and simple syrup to make five pints. Dose, one tablespoonful before breakfast with a glass of water.

For further information see my article "Magnesium Sulphate," Dec., 1904, Wisconsin Medical Recorder.

The Berlin correspondent of the Journal A. M. A. writes:

Our police have started a crusade against the unfavorable influences of improper moving picture shows on the young. According to a new regulation of the Berlin police, which came into effect the first of January, children under six years of age are absolutely excluded. Children from six to seventeen will be allowed to attend only special performances for the young. These shows must end at 9 o'clock and must be specially designated on the program of the play, at the entrance, as performances for the young. In many cases it will not be easy to determine the age of a young theatergoer; but at any rate, these new regulations present an effective arrangement by which it will be possible to protect our youth against the demoralizing influences of questionable moving picture theaters.

The Wisconsin
Medical Recorder

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F. W. VAN KIRK, M. D. } EDITORS
PUBLISHED BY
WISCONSIN MEDICAL RECORDER
JANESVILLE, WIS.

SUBSCRIPTION PRICE

$1.00 per Year in Advance; Single Copies 10c in the United States and Mexico.
$1.25 per Year in Canada.
$1.50 per Year in Foreign Countries in the Postal Union.

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LETTERS, CASE REPORTS AND QUESTIONS are desired for our Discussion Department.

We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Reports and items of interest are gladly received.

VOL. 16 FEBRUARY, 1913 No. 2

MEDICAL READING.

It has been a surprise to me lately to hear of the enormous amount of money that doctors are yearly giving to the publishers of medical books—and the majority of these doctors are those who live in the smaller cities of the country.

A few years ago I was talking with one of the leading surgeons in one of the largest cities and it was something of an eye opener to me when he said, Doctor, buy fewer medical books and spend more of your time with your journals. The more I have thought of that remark, the more I have come to believe that it was the best advice I had ever had in reference to my reading. How many of us pay big prices for medical books and on looking them over find but little new material and how many times does the feeling of disappointment come to us and regret for investing so much money with such little return.

On the other hand, what do we get from our journals? If we stop to think how many new discoveries are there that are not first given to us in our journals? We have all come to believe that it is a waste of time taking any stock in the much vaunted remedies we see in the lay press for we know that if there is merit to the discovery we will hear of it soon enough through the columns of our best medical journals. There are no class of men who are as unselfish as to new ideas discovered by them as the physicians of our country, and they are the first to tell the general medical public of their discoveries. I don't want anyone to think that I am not in favor of medical books, it is just the other way, for I believe we should keep our libraries up, but what I do condemn is the promiscous buying of every new book, for I consider it a waste of hard earned money. Select your books carefully, Doctor, as you do your journals, in either case buy what is the best and you cannot go far wrong.

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COUNTY TUBERCULOSIS SANITARIUMS.

A question that has been bothering the general practitioners throughout the country for some time is what shall we do with our tuberculosis patients that are without means to pay for the proper treatment? This has indeed been a serious problem and it is a problem in which physicians in all parts of the country are deeply interested. During the last year or so there has been much activity in hundreds of the county societies and as a result many county tubercular sanitariums have been erected, taking care of hundreds of these patients in

the right way—and we are pleased to learn that they are reporting many cures. It is too bad that the advisability of erecting such a sanitarium is not left to a board of competent phyisicians in the respective counties instead of to the county board—for much valuable time is being lost and many useful lives are being sacrifieed daily when they could be saved and become useful citizens if they only had the chance.

Politics is all right in its place but it should have no place where it is a question of the treatment of this greatest of all scourges that we have to deal with today—"tuberculosis."

What are the doctors doing in your county? If a movement is not on foot to establish such a sanitarium, providing one is not already established, get busy doctor at your next county meeting and start the ball a rolling and do your part to bettering this class of our citizens—who without help are as we know, doomed.

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DR. FREDERICK FRANZ FRIEDMAN.

Probably no man at the present time is more talked about both by the profession and the laity than Dr. Frederick Franz Friedman of Berlin, Germany, who has arrived in New York and is now demonstrating the use of his vaccine in the treatment of tuberculosis.

There has been so many alleged cures for tuberculosis that now when a new one comes up we are not so ready to believe all that the discoverer claims for it—and the medical fraternity of the entire United States will watch closely the results of the experiments that are being carried on in New York City. If a cure for this scourge has at last been found, Dr. Friedman's name will live through all ages. No class of men wish him more success than his professional brethren—and they will be the first to sing his praises if his vaccine proves to be a success.

I am sure the readers of The Recorder are all interested in this series of experiments and will watch with interest its outcome.

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On page 70 of this issue we publish an article by one of our subscribers entitled "Doctors are known by the journals they take." We agree with some of the statements made—such as the inadvisability of buying too many medical journals without reference to their merit. We disagree however with his conclusions that no medical journal is worth the price paid for it. An editorial in this month's issue gives The Recordtr's attitude in regard to both the buying of Medical Books and Medical Journals. We would be pleased to have an expression of opinion of some of our readers on this point.

♣ ♣ ♣

A small erosion of the trachea may give rise to a hemoptysis, which must be distinguished from a lung hemorrhage by the absence of pulmonary and constitutional symptoms and by the fact that the blood is in small clotted lumps.—American Journal of Surgery.

♣ ♣ ♣

Salt solutions are absorbed most readily in Retzius' space (prevesical). Dr. D. Schouten says that one liter will be absorbed there in from nine to ten minutes; hence the painlessness of the injection there.—Therap. Monatsh.. 1912, p. 664.

♣ ♣ ♣

When confronted by an irregular rounded growth appearing to spring from the sternomastoid in the middle third of the neck, bear in mind the possibility of a carotid gland tumor.—American Journal of Surgery.

What a Recorder Subscriber Thinks of Medical Journals

By THEO. F. JOHNSON, M. D

"DOCTORS ARE KNOWN BY THE JOURNALS THEY TAKE."

Here is a list of the medical journals that I have taken for the year 1912. Also non-medical and I have averaged about this amount for thirty-five years; permit me to furnish you with a few facts; first the name of the journal; and I have made a careful estimate of all the reading matter, and is the first column is to be found the number of pages each month; 2nd column the entire number of pages of medical literature for the year; in the third the pages of ads. for the month; 4th, the number of pages of advertising per year; 5th, the pages of pictures per month; 6th, the pages of pictures for the year. It has taken some time to make up this estimate, yet I have aimed to be just; and I desire you to observe what you are paying for.

Put this amount into good Medical Books, for fifty years and you will possess the best medical library in the state; and you will have enough to be proud of. No two medical journals are of the same size and so many of them rehash the same topics, that you would not feel like having them bound, as all medical journals are similar to magazines, books of fiction, romance, tragedy, etc. That is they are made on poor paper, inferior ink, usually badly worn type, cheap work and in fact a fraudulen fake from start to the finish.

Here is an opportunity for the profession to do a little serviceable reforming, in the output of our medical journals, also the non-medical magazines. What do you imagine that the 225 monthly ads bring the Ladies' Home Journal? We are paying an extravagant price for medical literature, as well as all other.

There is not a medical journal or a magazine published in the United States that is worth the price you pay for it. I defy anyone to deny the statement.

	Reading Matter per Month	Year	Monthly Ads	Yearly Ad	Pictures		Price
Clinical Medicine	86	1,032	72	936	4	48	$ 2.00
Woman's Medical Journal	22½	270	24	288	½	6	2.00
American Journal of Derma.	25½	306	24½	294	33	369	2.00
The Homoeopathician	32	660	4	48	2	24	2.00
Wisconsin Medical Recorder	33	396	24½	338	1	12	1.00
Medical Summary	31	372	34½	414	Rare.		1.00
Medical World	25	300	33½	402	Rare		1.00
Medical Council	37	444	36	318	Rare		1.00
Columbus Medical Journal	30	420	4½	54	Rare		1.00
American Journ. of Surgery	30	360	70	840	2	24	1.00
The Homoeopathic Recorder	47	564	26½	318	Pict.	None	1.00
Cleveland Med. Surgical Journal	55	420	10½	126	Pict.	None	1.00
Iowa Homoeopathic Journal	55	660	26½	126	Pict.	None	1.00
Non-Medical Collier	12	624	18	936	6	72	4.50
Saturday Evening Post	23	1,196	33	1,716	5	60	4.50
Metropolitan	35	1,820	12	624	13	156	1.50
Ladies' Home Journal	36	1,872	38	1,975	20	240	1.50
The Housekeeper	20	240	14	168	6	72	1.50
The Literary Digest	26	1,352	20	1,040	4½	54	3.00
Chicago Sunday Tribune							3.64
Des Moines Daily Register							2.00
Perry Daily Advertiser							1.50
The World's Wit and Humor, 15 Volumes							15.00
Various Medical Books							25.00
A Total							$77.64

MEDICINE AND SURGERY AT THE PANAMA-PACIFIC INTERNATIONAL EXPOSITION.

The Panama-Pacific International Exposition at San Francisco in 1915 will display in a most comprehensive manner the achievements and activities of mankind during the last decade. In the domain of Liberal Arts the exhibits will be notably interesting and significant. The wonderful developments in medicine and surgery make certain a display of the highest importance and which will be of great benefit to the human family. The mechanical side of surgery will be represented by a complete collection of instruments and appliances used in this important field of human endeavor. There will be shown the most intelligent modern methods employed in the prevention and mitigation of the ills which beset mankind.

Keen interest is manifested by both American exhibitors and foreign governments, which assures an exposition of the most representative International character. Latin America and the Orient will take very important parts. Both Japan and China have already selected sites for their special buildings and will participate on a scale never approached at an exposition. Twenty-four foreign countries have already accepted the invitation of the President of the United States to participate, and thirty-three states have likewise accepted.

The opening of the Panama Canal means the development of entirely new avenues of commerce, the extent of which it is impossible to overestimate. The Orient and Latin America should prove large and profitable markets for the appliances, equipment, etc., of medicine and surgery, and the Universal Exposition at San Francisco in 1915 will afford a rare opportunity to bring these products to their particular notice.

President Moore has appointed Theodort Hardee as chief of the department of liberal arts.

Liberal arts is one of the most attractive departments of the divison of exhibits and will occupy all of one of the main exhibit palaces and comprise such interesting groups as the various printing processes, engraving and lithographing, books and publications, manufacture of paper, photography, maps and geographical apparatus, instruments of precision, scales and measures, coins and medals, medicine and surgery, chemical and pharmaceutical arts, musical instruments, theatrical appliances and equipment, electrical methods of communication, telegraphy and telephony, civil and military engineering, models, plans and designs for public works, architecture and architectural engineering. These fifteen groups are divided into 121 classes, and each class covers a distinct feature of the group in which it is placed.

Hardee has enjoyed a wide experience in exposition practice. He was principal assistant to Walter B. Stevens who was the general secretary and also director of exploitation for the St. Louis World's Fair of 1904. Prior to the opening Hardee spent considerable time abroad for that great undertaking, circling the globe as special commissioner with John Barrett, the commissioner-general to foreign countries.

While in St. Louis Hardee also acted as St. Louis representative of the Lewis and Clark Exposition of Portland, where he subsequently became assistant to the president. In this capacity he planned and directed all the special events and entertained at that very successful exposition.

Hardee first became associated with the Panama-Pacific International Exposition in a voluntary capacity during the spring of 1910. As secretary for the executive council of the finance committee he was of material assistance in that active campaign which

resulted in raising the exposition subscription fund. He entered the exposition's employ in September, 1911, and last winter acted as secretary to President Moore during that official's visit to Washington. Upon their return Hardee was appointed executive officer of the commission extraordinary to Europe and accompanied that important mission to the fifteen European capitals.

F. R. Benson, the English master of pageanty, addressed the members of the exposition board of directors and outlined his ideas of pageants that might be held during the exposition year. He also thanked them for the courtesies shown him during his stay in the city, and stated that his services were at the call of the exposition.

THE DOCTOR'S LIBRARY

Ophthalmic Myology. A Systematic Treatise on the Ocular Muscles. By G. C. Savage, M. D. Illustrated with 6 plates and 84 cuts. Pages 685. Cloth, Price, $4.00. Geo. S. Johnston Co., 105 N. Wabash Ave., Chicago.

Those who attend the meetings of the section of ophthalmology of the American Medical Association are familiar with the earnest expositions of his theories given at these meetings by Dr. Savage. For years he taught his theories which are not in accord with Helmholtz and year after year Dr. Savage has made more converts to his views. Every physician interested in eyework needs Dr Savage's two books. He very clearly shows by means of numerous diagrams, contrary to the teaching of Helmholtz, that the center of the macula is the posterior pole and that all indirect visual lines cross the visual axis at the center of retinal curvature, which is also the center of rotation. Dr. Savage is always interesting whether talking or writing.

♣ ♣ ♣

Ophthalmic Neuro-Myology. A Study of the normal and abnormal actions of the ocular muscles from the Brain Side of the Question. By G. C. Savage, M. D., Professor of Ophthalmology Medical Department of Vanderbilt University. Illustrated with 39 Full Page Plates and 12 Figures. Pages 221. Cloth, Price $2.50. Geo. S. Johnston Co., 105 N. Wabash Ave., Chicago.

This work is a clear exposition of the actions of the ocular muscles. It is a companion volume of the author's Ophthalmic Myology. Dr. Savage's theory as given in this work is as follows:

The hypothesis on which Ophthalmic Neuro-Myology is founded, may be stated as follows: There are eight conjugate brain centers in the cortex, by means of which the several versions are affected and one conjugate center by which convergence is caused. These conjugate centers act alike on orthophoric and heterophoric eyes, and when there is only one eye. Each of these is connected with two muscles, and the work done by the center and its muscles, under the guidance of volition, is moral work. The conjugate centers have no casual relationship with the heterophoric conditions, nor have they any power for correcting them.

There are twelve basal centers, each connected with only one muscle. If the eyes are emmetropic, orthophoric, these centers are forever at rest; but when there is any form of heterophoria, one or more of these centers must be ever active, during all working hours. These centers do not cause heterophoria, but they stand ready to correct it. Under

the guidance of the fusion faculty, each basal center stands ready to act on its muscles, whenever there is a condition that would cause diplopia They may be called fusion centers

If the above hypothesis accounts for every phenomenon connected with the normal and abnormal actions of the ocular muscles, as it seems to do, then it ceases to be an hypothesis and becomes a scientific fact.

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E. Marck's Annual Report of recent Advances in Pharmaceutical Chemistry and Therapeutics, Vol. XXV. Pages 508. Paper. E. Marck, Darmstadt.

This annual volume of Merck's abstracts the world's literature on new pharmaceuticals and their uses. All the new pharmaceuticals of a year are presented except those of a secret nature. Sera and antigens receive considerable notice. The book is sent free to physicians who apply for it.

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STATE SANITATION.

Pennsylvania's efficient Health Commisioner, Samuel G. Dixon, presents in a brief paper some of the results of his four years' adiministration of that office. His success he attributes to his maxim—Keep close to the people. From the beginning he sought to make people see that he came as a helper and not as a meddling official, clothed with a little brief authority which he was over-anxious to display. The vast majority of folks are sensible, and ready to aid in any good work if they see that it is good. But nobody likes to be driven, even if told that it is for one's own benefit.

Dr. Dixon enumerates some of the activities of his department during the past four years:

3,301 patients admitted to the State Sanatorium for Tuberculosis in 3 years. Many discharged cured.

32,225 poor tuberculosis patients treated and nursed at the 115 dspensaries of the State.

♣ ♣ ♣

A device to enable physicians to keep in touch with a patient's pulse, though he be miles away, is on trial in Harvard Medical School. After electric connections have been made, the patient's hand is placed in a solution of warm salt water, and electric currents from the hand are carried by wires to an instrument, which records the heart beats. By this electric device can be recorded every movement of the heart and the muscles about the heart at any distance, through a syste mof relays similar to that used in telegraphy. The instrument gives accurate information, and so can be relied upon to keep the physician informed of the exact condition of his patient, so far as his heart beats are concerned. The device, however, will really be more useful in bringing certain important information before bodies of medical students, than by aiding a physician in his regular practice. It would be so expensive a method of treatment that the ordinary patient could not afford it. (Medical World.)

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The Mulford Digest is a periodical devoted to serum therapy, bacterin therapy, vaccine therapy and immunization. The Digest gathers and epitomizes the elusions of the word's scientific and professional workers in laboratory research, therapeutics, clinical and preventive medicine included in the subjects mentioned alone. Physicians will find much valuable information in the Digest.

CO-OPERATION

From the many encouraging letters received The Recorder believes that the class of articles which have been published during the seventeen years of its existence are along the lines appreciated by the busy doctors, who are fortunate enough to have a copy on their office table. In looking over the list of contributors to The Recorder I find the names of many of the leading men of the profession, and I am happy to say that most of these former contributors are still to be counted on for articles from time to time. In addition we are of course anxious to enlarge our list—and have so far been very fortunate in securing the names of such men as Dr. Thomas J. Watkins, of Chicago; Dr. Charles E. Paddock of Chicago; Dr. Bayard Holmes, of Chicago; Dr. E. G. Alford, of Waterloo, Iowa; Dr. Jos. Brennemain, of Chicago; Dr. F. H. Slayton of Wichita, Kan. and many others.

The subjects written on by the above mentioned men will include Surgery, Gyncology, Obstetrics, Eye and Ear, General Medicine, Diseases of Children, etc. Each year we hope to add to this list of names and each year we hope to receive more and more articles from our readers—for as mentioned elsewhere in this issue the hearty co-operation of all is needed to make The Recorder the success it merits. Its place is among the busy practitioners, and from its past record we know it has always been appreciated—and we hope if possible to keep up the same excellent standard that this Journal has always maintained.

Beginning next month The Recorder expects to feature an abstract department. In this department we expect to print each month abstracts of some of the best articles that are published in some of our foremost journals. We all appreciate how difficult it is to read a great number of different Medical Journals but we all can find time to read abstracts of articles that particularly interest us.

It is also going to be the aim of The Recorder to broaden the department of Book Reviews. This department is also an important one in any medical journal, it gives the general practitioner a chance to decide whether he thinks such a work deserves a place in his library, and if so he will lose no time in adding it to his well chosen list of books. The Recorder is always open to suggestions; if you are particularly interested in any one subject and wish to have articles written on the same, make the suggestion to your Editor and be assured it will be his earnest endeavor to have such articles written by the best authorities. As in the past, so in the future it will be the aim of The Recorder to please its readers in every way possible, and in order to do that we want to hear from you from time to time. If you are pleased with the class of articles that The Recorder gives you, tell your professional brothers about your favorite journal, or send us a list of your friends and we will be only too glad, and esteem it a privilege to send them a sample copy. As soon as our readers realize that The Recorder is as much their journal as it is the publisher's, just so soon will a higher standard be attained.

FRANK W. VAN KIRK.

Wisconsin Medical Recorder

A Monthly Journal of Medicine and Surgery, devoted to the best interests of the profession

VOL. XVI MARCH, 1913 NO. 3

WHY WE GROW OLD

G. G. BURDICK, M. D. and THEODORE C. F. ABEL, M. D., Chicago

Continued from Page 39 February Recorder

The mental condition of these people is usually morose and sullen, bringing about digestive conditions that age them very rapidly. These conditions are by no means confined to the muscle workers, but the effects are more profound in brain workers, as complete loss of motion in the stomach is noted, with the result that the food simply does not digest, but is disintegrated by micro-organisms giving rise to various subtle poisons which rapidly cause destruction of the standard of health, and lay the foundation for various neuroses at some future time.

BAD HABITS.

The use and abuse of alcohol has a profound effect upon the life expectancy of the individual; if used in moderation local changes are slowly brought about, first mild gastritis, and later changes in the liver.

When used to excess most profound changes are brought about, the stomach being constantly irritated by contact with alcohol, eventually an inflammation is started as Nature endeavors to protect itself. This will lead to chronic inflammation, which will cause atrophy of the glands to take place, while the liver having to receive anl dispose of such a quantity of irritating substance, gradually atrophies, giving rise to the so-called hob-nailed liver, owing to the destruction of certain portions of the gland which has been replaced by scar tissue. This substance circulating through the blood vessels gradually sets up a low-grade inflammation with degenerative changes that are the precursors of death; the arteries become hardened and lose their elasticity, raising the blood pressure markedly and throwing additional work on the heart.

If this abuse is long continued, marked changes are brought about in all body tissue. The high blood pressure endangers the fragile blood vessels of the brain, causing them not infrequently to give way producing apoplexy and paralysis. The long continued effect of alcohol in poisonous doses causes a retrograde change in the thyroid gland, which has a most profound effect upon metabolism.

THE DUCTLESS GLANDS.

The medical profession up to within the last few years have regarded a number of structures of the body as being the remains of some obsolete function in prehistoric man, and it is possible that knowledge would not have grown rapidly if a few ambitious operators had not removed them for some reason. These operations were followed by profound changes that impressed the importance of these structures indelibly upon medical thought.

We have found that a wonderful system of interchanges takes place between these structures, as one or more

may take up the function of a destroyed gland, and allow the patient to live, but with impaired health. A beautiful system of balance is maintained in these glands which excites the keenest interest from the physician's standpoint, and any condition which disturbs this balance for a short period of time will bring about far-reaching changes in the physical aspects of the individual.

THYROID GLAND.

This is a double lobed gland connected with a narrow bridge, situated in front of, and on both sides of the trachea, at the base of the neck. The internal secretion from this gland enables us to absorb and utilize protein food. It gives to the blood some principle which enables the body to assimilate nitrogen for its repair, and oxidize and eliminate its waste.

HYPERTHROIDISM.

If for any reason some irritant should circulate in the blood, like the toxins from some septic disease, or the products of albuminous decomposition, the thyroid gland will increase in size while a richer blood supply will flow through it, owing to the sympathetic nerve control being temporarily suspended from the same cause. This results in an increased quantity of thyroid secretion finding its way into the blood. Hence, it results in an increased nitrogen consumption.

The urea output is increased through the kidneys, while a loss of flesh ensues. If a great amount of secretion finds its way into the blood, the heart begins to beat faster, while the eyes protrude. This gives us the condition called Graves' disease or exophthalmic goiter, a disease which was regarded as incurable up to a few years ago, but which has resolved itself into a very simple affair if intelligently treated by modern methods.

If the secretion of the thyroid continues, the condition of disturbed metabolism grows worse, until the tissues are actually destroyed, while the toxemia from the end products of metabolism rapidly causes death.

Occasionally a patient may survive the disease until the cause is removed by its effects; in other words the prolonged toxemia will eventually cause an atrophy of the thyroid to take place from lack of nutrition, and a cure may result, leaving a condition of defective nitrogen assimilation, due to a lack of the thyroid secretion.

THYROID IDIOSYNCRASIES.

In certain people who are suffering from thyroid poisoning or defective elimination from small kidneys, nitrogen waste accumulates rapidly in the blood giving rise to chronic poisoning, and this results in the condition we call asthma a spasmodic condition of the organs of respiration, coming on at intervals and lasting for several hours in given cases.

In this disease the medical profession has made the same mistake as in other things; they have spent too much time looking for something to relieve the symptoms, rather than taking the simpler and more rational procedure of removing the cause.

It is no uncommon occurrence in acute attacks of asthma to find as much as 90 grams of urea excreted in twenty-four hours, six times the amount noted in normal health. By the simple procedure of correcting the cause of the trouble, no further attacks of this disease will take place.

If a thyroid gland is only slightly more active than normal, we will usually find a person very nervous and poor in flesh.

OEFECTIVE THYROIO.

It occasionally happens that an arrest of development takes place in this gland, it sometimes being found rudimentary, secreting so small an amount of secretion that life alone is possible.

FEEBLEMINDEDNESS.

Children with a rudimentary thyroid gland are always feeble minded, or in more favorable cases, of a dull intellect with a slow memory. Until within late years they were looked upon as being incurable and a great effort was made to train their dormant intellect to a degree that they might attend to their own wants. A limited amount of success following a tremendous expenditure of energy was obtained, while in other individuals no impression was made.

THE THYROID FUNCTION.

When physiological chemists began to point out the probable function of the thyroid to growth and health an extensive series of experiments were made upon animals, removing more or less of the gland. When this procedure was carried out upon puppies there was a curious lack of intelligence as they grew older. The hint was tried out on a few feeble-minded children who showed some signs of intelligence, and to the gratification of the experimenters, a slow but persistent gain in intellect took place.

It will take many years of observation before the ultimate outcome of these experiments is realized, yet from the results so far obtained it seems probable that a far-reaching discovery has been made. If by chemical means the intelligence of a dull child can be improved, it is not improbable that more definite results will be obtained with more study.

THYROID IN OBESITY.

In line with the study made of this gland, we discovered that an individual who was possessed of a gland which did not supply their needs, that a gradual increase in flesh took place, ranging from a slight increase in weight to an actual obesity, if the gland was very inactive. This has simplified the treatment of these conditions when done under proper control, as no more dangerous or potent remedy exists than the extracts made from these organs.

EFFECTS OF THYROID UPON THE HAIR, NAILS AND SKIN.

Many curious things occur in medicine which cannot be explained at the time they happen, and physicians must wait the slow process of investigation before facts are obtained on which to base an opinion.

At intervals following some acute illness, the hair, eyebrows, nails and teeth would loosen and drop out, while the skin took on a very peculiar texture resembling leather. The cause of this condition (myxedema) was not suspected for many years, but eventually was found to be due to a defective thyroid gland. This discovery has made it possible to prevent this condition if recognized early.

NITROGEN HEADACHES.

A large number of people suffer more or less all their lives from headaches, usually dating the trouble from some contagious disease. Investigation has shown that a defective thyroid gland is at the base of the trouble, not enough secretion being given to the blood stream to allow the cells to get their proper amount of nitrogen food for their vital process. This is called nitrogen starvation, where the thyroid is able to supply just enough secretion part of the time, to allow the patient to enjoy a fair degree of health, but never very far on the safe side of the nitrogen equilibrium required for comfort. At intervals the secretion falls for some reason, and immediately the patient is prostrated with a violent headache, lasting from one to three days. This process may be repeated all the patient's life, and in many instances has been of so severe a type as to preclude any vocation.

GOITER.

Tumors of the thyroid are called goiter and various forms of these

growths are known. Where a thyroid starts to grow we will almost invariably find that it is deficient in secretion, and where not malignant, the enlargement is Nature's effort to supply the deficiency.

HEMORRHOIDS

By HUGH H. MacKECHNIE, M. D.
Chicago, Ill.

Hemorrhoids are dilated or varicose veins in the submucosa of the rectum covered by a stretched and dilated mucous membrane. They may be external or internal depending on their relation to the external sphincter muscle but most often we have both varieties present especially in cases of long standing.

These patient come complaining of constipation, a sense of fullness in the rectum evenafter a movement, and of but little satisfaction from the movement. At times the piles will be sufficiently prominent for the patient to feel and this he will mention. Headache, anorexia, loss of appetite, congestion of the mucous membranes and other minor symptoms of toxemia may be mild or very irregular. A careful history will reveal a previous irregularity produced by a purgative.

Following these attacks a more or less rapid tumor formation and an aggravation of all symptoms occurs. Pain is not always present until the veins are so protruded that they tend to become strangulated and to ulcerate. Hemorrhage is present at times in greater or lesser quantity. Sometimes as much as a half pint is passed, and again merely enough to stain toilet paper. Itching is a frequent symptom. It is mostly present in the earlier stages and in cases which do not make a careful toilet.

On examination one may find only a few small teats around the arus or there may be a large rose like mass completely surrounding it. This may be markedly decreased in size by steady pressure. Internally a pulpy mass may be felt.

The diagnosis is always easy but one must ever bear in mind a condyloma or a possible latent syphilis and a carcinoma before deciding on the treatment and presenting a prognosis.

The treatment may be divided into medical, preventative and curative, and surgical. Certain men would wish to make the former appear a farce but there is undoubtedly a field for it in the early stages. For preventative treatment the following is advised—a free daily evacuation of the bowels, a liberal non-constipating diet, fruits in good quantities, and a free use of water both internally and externally. I do not approve of the use of bran and other foods of an irritating nature in constipation with hemorrhoids because of the large residue and consequent mucosal irritation. There is rather a necessity for muscular activity and this should be produced from the central nervous system instead of as a reflex from the bowel. I believe there are no cases except those with a pathologic basis such as adhesions, pressure, or nerve degeneration but can have a bowel movement with a little training without the assistance of artefacts.

Where the veins are becoming varicose and the hemorrhoids are developing, vigorous early treatment may be sufficient not only to stop development but to decrease their size or cause them to disappear. Laxatives, including aloes, for a daily movement at regular hours in cases where absolutely necessary, a flushing of the bowels at bed time to leave them empty and to rest them; a nutritious diet with minimum residue; an astringent suppository

night and morning in an empty rectum are worthy of consideration.

A suppository I find valuable is composed of Hydrastin gr. iss. Hammamalin gr. 1, Bismuth Subnit gr. 2, Ol. Theobrom q. s.

Many of these however cannot be cured even with this careful regime and becoming weary of the task they soon lapse in it. As a result they are in a short time as bad as ever and sufficiently discouraged to take up any and every fake cure; or resort to sufficiently strong purgatives to produce movements.

It is the case in this stage that usually comes to the operating table—thoroughly discouraged, markedly toxic; with a bowel too indolent to move, and with a marked tumor formation. It is in this case that much judgment is necessary, not only in the surgical work but in the management following the operation that the intestinal indolence resulting from the prolonged use of laxatives be overcome and the desired result of removed obstruction and normal bowel activity be produced.

Many of these early cases can be successfully treated by the injection of a coagulating fluid into the hemorrhoid to produce thrombosis and cicatrical contraction. There is some danger in doing it, of a thrombosis or a marked necrosis and sloughing and one must bear this in mind in this treatment.

In more advanced cases the thermo cautery is of marked value. One point in its use must not be forgotten. The operator should be careful to use the cautery at a red heat and not at a white heat. If the latter is used there is great danger of the edges of the wound not holding together and a raw surface being left when they separate. The same danger will exist if a number of points have been cauterized without suture.

In cases with a marked prolapse of the mucous membrane one should not use the cautery because of the necessity of a plug to prevent stricture and the inadvisability of using it because of the danger of spreading open the cauterized edges with the plug.

Here one should use the ligature and suture or broad excision of the Whitehead method. In the simple ligature operation the mass to be tied off is outlined. An incision is made in the mucous membrane parallel with the long axis of the gut. The mucous membrane is then dissected from the veins and they are liberated from all sides. The mass is clamped at the base and a ligature applied. The redundant part is then removed and the mucous membrane replaced and sutured. This is repeated at the various points where the hemorrhoids are found. When all are removed an opium suppository is inserted and is followed by the tube and gauze plug and dressing.

The Whitehead operation is most satisfactory when a prolapse of the mucous membrane with hemorrhoids occurs on all sides of the anus. The hemorrhoids are grasped by a number of forceps after the anus is well dilated manually. Tension is put on them and a circular incision is made around the anus about the junction of the skin and mucous membrane. The veins are now dissected from the underlying tissue until the external sphincter is reached. Now a circular incision is made in the anal side of the mucous membrane near the base of the mass and a slight dissection made The mass is now clamped anl ligatured in sections and the excess removed. Interrupted catgut or horsehair sutures coapt the mucous membrane and skin. In doing this one most have flaps long enough to avoid tension on the sutures and have a great care that coaptation is regular and without puckering. The plug are inserted and dressings applied.

The after treatment of these cases is quite simple. Morphine sulph. gr. 1/8 is given as required but I find that little is necessary when the suppository has

been inserted. On the fifth day an ounce of castor oil is sufficient to produce the expulsion of the tube and then ordinary cleanliness suffices. In a few cases a redundancy of tissue will remain in the form of small teats. On each of these I tie a fine silk or horsehair ligature and in a few days they drop off. The more serious condition of an insufficiency of tissue is to be dreaded with a resulting sloughing of the sutures and retraction of the flaps. One must always bear in mind two conditions which occur, fortunately infreuently, stricture and paralysis.

The former will follow a too free removal of tissue and the non-insertion of a plug to keep it dilated. The paralysis on the other hand will follow a too strenuous dilatation of the sphincter and the insertion of too large a plug. One is therefore, as it were, between two evils, and experience and judgment alone can help to make a proper decision.

I have spoken only of the direct treatment of the piles but one must not be unmindful of the other pathology which may be present and may be the true primary causative factor. I speak of pelvic adhesions and tumors particularly. If these are not looked after we can not hope for much success from hemorrhoidectomy.

PHYLACOGENS

By ELMER LEE HENDERSON, M. D.
Louisville, Ky.

Since the discovery of diphtheria antitoxin there has been much work done along the line of bacterial products; consequently, many preparations have been put on the market with extravagant claims by the various manufacturers, and a large number have fallen by the wayside, none proving to be of the value that diphtheria antitoxin proved itself.

However, it looks as though the Phylacogen originally called Schafer vaccine, prepared according to the method of Dr. A. F. Schafer, has come to remain as a valuable assistant to the physician in a number of diseases.

The principle upon which the use of Phylacogen is founded is, briefly, the theory of multiple infections. The three facts set forth by Dr. Schafer as the basis of this therapy are as follows:

First. Practically all the acute and many of the chronic diseases are caused by the metabolic products of bacteria.

Second. The human subject is the host of micro-organisms that are pathologically latent but capable of setting up a disease process under certain conditions.

Third. The growth of infecting micro-organisms can be arrested and their effects neutralized by products derived from their development in artificial culture media.

Dr. Schafer is of the belief that all infections are "mixed infections," that, except in rare instances, there is no such thing as an infection by a single species of micro-organism; that, while one species predominates, the pathological process engendered by it is accelerated and intensified by the pressure of organisms of other species; in other words, that in the course of an infectious disease the symptoms are due not only to the effects of a single species of organism (the specific infection), but to the influence of other organisms, whose pathogenic role is not insignificant, but which must be reckoned with in any successful scheme of therapeutics.

Dr. Schafer further believes that the human object is at all times the host of a great variety of organisms and may harbor pathogenic bacteria without harm to itself during periods of physiologic resistance at or above par and in the absence of any solution of tissue

continuity. When the resistance is below par, or a solution of continuity of tissue occurs, the bacteria harbored by the human host assume pathologic significance. Furthermore, he contends that certain diseases, as typhoid fever, pneumonia, tuberculosis, erysipelas, rheumatism and others are objective and subjective symptomatic manifestations of the preponderance in the patient of the toxic and destructive products of the peculiar species of organism to which the etiology of the disease is usually described as B. Typhosus in typhoid fever, D. Pneumoniae in pneumonia, and in addition, the symptoms are due, in part at least, to the destructive action of certain materials produced by complicating organisms, which are always present in great variety and number.

As an illustration, attention may be directed to the now commonly accepted idea that in pulmonary tuberculosis the greatest danger to the patient, much of the difficulty of the treatment, and many of the most notable symptoms, such as loss of weight, high temperature, disturbance of circulation, purulent expectoration, destruction of tissue, etc., are due to the complicating organism; and, if the so-called "mixed infection" can be checked or eliminated efforts may be directed against the Bacillus Tuberculosis with far greater success than has before been possible in the treatment of this condition.

The preparation of Phylacogens as described by the manufacturer is as follows:

Phylacogens are neither "bacterial vaccines" nor "sera," as is ordinarily understood. They are sterile aqueous solutions of metabolic substances or derivatives generated by bacteria grown in artificial media. The bacteria, first killed, are removed by filtration through unglazed porcelain. To determine sterility, the Phylacogens are subjected to careful cultural tests.

The Phylacogens are made from a large variety of pathogenic bacteria, such as the several staphylococci, Streptococcus pyogenes, Bacillus pyocaneus, Diplococcus pneumoniae, Bacillus typhosus, Bacillus coli communis, streptococcus rhematicus, Streptococcus erysipelatis, etc. This basic Phylacogen is a "polyvalent" preparation, of polyphylacogen, since the organisms are not from one strain only of a given species, but from culture made at frequent intervals and from a variety of sources. The various organisms are present in the material before filtration and dilution in approximately equal proportions. The cultures are incubated at 37° C. for seventy-two hours or longer, after which a preservative consisting of 0.5 per cent of phenol is added to the fluid, which is then filtered through unglazed porcelain. The basic Phylacogen, made in this manner is used in the preparation of the several specific Phylacogens. It has been named "Mixed Infection Phylacogen."

Each specific Phylacogen is prepared as follows: The basic material (Mixed Infection Phylacogen) is modified by the addition of an equal amount of the filtrate obtained by growing and treating the organism considered to be the predominant in the pathological condition to be treated; for instance, in the prepartion of Typhoid Phylacogen, the Bacillus Typhosus is grown and treated like the several organisms entering into the preparation of the basic Mixed Infection Phylacogen. The filtrate obtained from the preparation of the typhoid organism alone is added in equal amount to the Mixed Infection Phylacogen, and the resulting product given the specific name, "Typhoid Phylacogen." A similar method is employed in the manufacture of the other specific Phylacogens, such as Pneumonia, Gonorrhoea, Tuberculosis, Erysipelas, etc.

Great care must be exercised in mak-

ing a correct diagnosis before using Phylacogen, as the successful results of administering the product depend largely on a correct diagnosis.

A mistaken diagnosis will result in disappointment to both doctor and patient, as in a case that I observed recently. The patient was treated with Rheumatism Phylacogen without results, and the physician in charge of the case accidentally ran across a condition which caused him immediately to correct his diagnosis and used Gonorrhoea Phylacogen and the patient began to show signs of improvement at once.

All patients should be given a thorough examination as to the condition of the kidneys, arteries and heart, for it is not wise to administer Phylacogen to a patient suffering from nephritis, arteriosclerosis, or far advanced valvular heart lesions.

METHOD OF ADMINISTRATION AND REACTION CASE REPORTS.

Phylacogen may be administered in either of two ways: Subcutaenously or intravenously. The first dose should always be given subcutaneously, but if the patient has no contraindications I prefer the intravenous method after the first dose; although the reaction comes on more stormily and promptly, it does not last so long. You do not have the local reaction that you would have in the subcutaneous method and you get a prompter and more permanent result from the intravenous method.

Case 1.—C. H., age 20, white, male, single, cable splicer. Family history, negative. Personal history, usual diseases of childhood.

Was called to see patient April 22, 1912. He had had abscesses of left cervical glands which were opened April 19th by another physician. Patient was in second day of erysipelas invasion when seen. Entire face swollen and inflamed, both eyes swollen shut and pus exuding. Pulse, 136; temperature, 104; respiration, 24.

April 23rd, 11 a. m., 2 Cc. Phylacogen injected subcutaneously.

April 24th, 11 a. m., temperature reduced, pulse and respiration less freuent; no marked change in general appearance of parts. Six Cc. Phylacogen were given at this time; 5 p. m., same day, 8 Cc. were given.

April 25th, 11 a. m. temperature, pulse and respiration normal, face wrinkled. Both eyes open. No Phylacogen administered.

April 26th, 11 a. m., 10 Cc. Phylacogen injected. The last dose was given to procure complete immunity.

Patient last seen at my office May 13, 1912, having made a complete and most satisfactory recovery.

Case 2.—H., age 28, white, male, married, bartender. Family history, negative. Patient had usual diseases of childhood. Gonorrhoea five years ago, cured in two months. Present disease, gonorrhoea, contracted eighteen months ago. Patient thought at times he was cured, but symptoms would return.

He had been having pains in joints and muscles for nearly a year. Patient came to my office January 1, 1912, with both ankles swollen and could hardly walk. Slight discharge from urethra present.

Treatment: Four doses of Gonococcus Vaccine, 500 million each, given at four day intervals, with slight improvement in patient's condition.

January 19, 1912, Gonorrhoea Phylacogen, 2 Cc., given subcutaneously. January 20th, 5 Cc.; January 21st, 8 Cc.

Then 10 Cc. Gonorrhoea Phylacogen were injected each day until ten doses had been given; treatment being discontinued January 29, 1912, at which time patient was much improved. All swelling had left ankles; a little discharge was still present.

The reactions in this case were very marked, the temperature going as high

as 103½, pulse 140, at times preceded by hard chills. There was no reaction following the last two doses, which to my mind was a signal to stop treatment.

February 14, 1912, patient was in my office and had gained fifteen pounds in weight and said he was better than he had been in eighteen months.

Results in this case were very satisfactory to both patient and doctor.

Case 3.—W., age 20, white, single, female, assists in housekeeping.

Family history: Father died at age of 72 of Bright's disease; mother died at age of 65, also of Bright's disease. Two sisters are dead, one dying in infancy, the other when 27 years old, of an unknown cause. One sister living, in good health, age 30. Two brothers living, 27 and 34, in good health.

Diagnosis: Tubercular peritonitis.

Subjective Symptoms: Patient has had the usual diseases of childhood, had indigestion and stomach trouble for about six months previous to a laparotomy, February 4, 1911, at which time abdomen was greatly distended with ascitic fluuid. Upon opening the cavity miliary tubercles were found in great quantities. Wound was closed, after which a sinus formed which refused to heal. A second operation for the relief of this was performed June 14, 1911, the condition being greatly relieved, but the sinus persisted.

Objective Symptoms: Patient had gained many pounds and looked in eycellent condition. There was a discharging sinus in the median line three inches below the umbilicus about two and one-half inches in depth.

Treatment: December 4, 1911, 6 Cc. Mixed Infection Phylacogen were given, followed, December 5th by 8 Cc., then 10 Cc. each day until ten doses were given. The reactions for the first few days were very characteristic, the patient having hard chills, temperature going up to 103, pulse to 120, but both would always come down in a few hours. After the seveneth dose there was very little reaction.

December 14, 1911, patient was feeling fine; wanted to leave hospital; sinus very much improved, but not closed.

At this time ¼ Cc. of Tuberculosis Phylacogen was given, followed by a slight reaction. The patient was allowed to return home the next day, where the treatment was continued, the patient receiving nine more doses of Tuberculosis Phylacogen, two doses being of ½ Cc. each, two of 1 Cc. each, one of 1½ Cc., and four 2 Cr. each, at four day intervals.

There was not much reaction following the first two doses of Tuberculosis Phylacogen, but it was very marked after the other treatments, the patient having a hard chill, the temperature rising as high as 102½, while the pulse was very rapid. There was also a very marked prostation lasting for two or three days; the patient stated that by the time she was feeling good, it was time for another dose.

I did not think at the time that I discontinued treatment that the patient had been benefited, but after the treatment had been discontinued, patient began to improve very rapidly, taking on a great deal of flesh. About two months previous of the use of the Phylacogen treatment this patient had been on a slight decline. She had been weighing 140 pounds and had gone back to 135, but after the treatment she continued to improve taking on weight, until now she weighs 162, and appears to be perfectly healthy, except a slight sinus, which continues to discharge.

In conclusion I may say that the Phylacogens from my experience have a definite value in a number of diseases. I have never had any unsatisfactory results and judging from the reports from all parts of the country I certainly feel justified in recommending that they be used.

MATERNITAS

By CHARLES E. PADDOCK, M. D., Chicago, Ill

(Continued from Page 63 February Recorder

The pregnant woman seems to be the prey of the gossip mongers, of women who feel it their duty to pour into her ears all that is unpleasantly connected with childbirth. The tattle of such persons should be strictly avoided. They are unfortunate women who have not the fine sense of feeling which is expected of the gentler sex, and who masquerade as friends, but are ever ready to make the life of the pregnant woman miserable. The fact that from the beginning of the human race women have successfully given birth to children should encourage the expectant mother in the belief that she can do the same.

Light housework may be carried on with much benefit to the pregnant woman. Such work brings into activity the muscles generally, keeps her mind occupied, and is an ideal exercise when properly done.

Deep breathing exercises the muscles of the chest, fills the lungs with pure air, and thus supplies more oxygen to the blood. Ordinary breathing is very superficial, only a part of the lung being inflated. Several times a day the lungs should be emptied of air and then slowly filled by breathing through the nostrils. The advantage of such exercise will be apparent.

PREPARATION FOR CONFINEMENT.

Cleanliness—Asepsis.—The value of surgical cleanliness to both mother and child during the whole puerperal period is so great that it well justifies the old saying, "Cleanliness is next to godliness." Indeed, the main object of the physician throughout the entire case is the carrying out of that degree of asepsis or surgical cleanliness which will keep the mother free from disease and give the child every chance to develope robust health.

It seems strange to many people that such radical change from the conduct of confinement in bygone ages are now deemed advisable. As a matter of fact surgical cleanliness was just as necessary in the pre-aseptic days of our grandmothers as it is now. In those times childbirth fever was the rule rather than the exception. Now, thanks to our knowledge of bacterial infection, this disease is rare.

It is not the author's intention to mention anything which would lead the expectant mother to think any harm could come to her at the birth of her baby, but he feels that he must answer the criticisms of those who consider surgical cleanliness unnecessary. Statistics will show why all of this "fuss and feathers" is requisite. Because the mother of long ago successfully passed through her confinement is indeed a mystery when the dangers are considere, but she was fortunate. One pregnant woman out of every twelve died from causes incident to childbirth, and of those who survived, invalids were many. During the past ten years there have been over seven hundred births at the Chicago Charity Hospital without a death. This should be a fitting reply to those who criticise such methods.

We find, practically, that sterilization of all the articles which come in contact with the patient destroys the micro-organisms which cause childbed fever, but, then, unless the nurse and physician thoroughly cleanse their hands and wash them in some antiseptic solution, the sterilized articles, such as sheets, towels, etc., become contaminated. The water as it comes from the tap contains germs, so we boil the water that is to be used in the case to destroy them. They could be destroyed by antiseptic solutions, such as carbolic acid, bichloride of mercury, etc.; but it would be necessary to make these solutions too strong for practical purposes.

Articles Sterilized.—To assist in car-

rying out this idea of cleanliness the trained nurse must see that the list is complete and the following articles sterilized at least three weeks before the expected time for confinement:

3 hand brushes, wooden backs; 1 nail file; 1 pair rubber gloves; 6 sheets; 6 pillow slips; 2 dozen towels; 2 surgeon's gowns; 1 pair duck trousers; 1 long night gown; 3 short obstetrical gowns for patient; 2 pair white stockings (opera length); 5 dozen perineal or obstetrical pads; 4 accounchement bed pads; Cotton pledgets, half pillow slipful; gauze sponges; 4 abdominal binders; 12 breast towels; obstetrical tape; 6 breast binders; 3 cord dressings; gauze for packing, 13 yards; applicators, 1 box; 6 flannel bands for baby; 4 T-bandages.

Physician's List of Articles.—She will also see that the physician's list has been furnished and is ready. It is as followed:

3 quart fountain syringe; 1 Perfection bed pan (granite); 2 yards rubber sheeting; 3 granite basins (medium); 2 granite pitchers, 2 and 3 quarts; 2 gallons hydrox water; 1 pint alcohol; half ounce silver nitrate, 1 per cent; half ounce fluid extract of ergot; 3 ounces Squibb's chloroform (original bottle); 4 ounces lysol; bichloride tablets; 4 ounces boracic acid crystals; 6 ounces green soap; 2 straight medicine droppers; 2 No. 2 rubber catheters; 4 ounces alboline; 1 glass drinking tube; 1 low chair without arms; 1 screen with firm frame; 1 clothes bar, nursery size.

Many cannot afford to purchase all these articles, and the list may be modified. The physician, however, would rather dispense with the entire list than not have the articles about the bed thoroughly clean.

Frequently all preparations for the confinement must be made either by the patient or some member of the household. In such a case the following instructions will be found useful: Take a few old sheets and towels, old linen, or cheese cloth, wrapping each in a separate cover and then in a newspaper. At the same time, prepare the bed-pads, a yard square, quilted or tacked, as before stated, wrapping these as you have the other articles. The packages are now put into the oven and baked until the paper becomes quite brown. These articles should then be put away, not to be opened until the physician arrives. Instead of the rubber sheet, a rubber oil cloth will answer the purpose. Boil the necessary basins and pitchers for one-half hour in some large receptacle, as a wash boiler, and put them away. Thoroughly clean and ventilate the room to be used for the confinement, and remove old carpets, rugs and hangings. Any old cotton or linen which has been left from a previous confinement or sent in by the neighbors must be subjected to heat by boiling. When all the above preparations have been made, the case can be scientifically conducted with the additional advice which the physician will give at the time of the confinement.

The Nurse.—For the carrying out of the best ideas in the practice of obstetrics, particularly those of surgical cleanliness, the trained nurse is a necessity. The physician should select the nurse. An obstetric nurse must have skill much beyond that required for ordinary nursing. She must not only be a capable surgical and medical nurse, but she must be able to care for the babe as well.

The nurse should be engaged early and a date set for her to come, otherwise she may be called to another case. When engaged to come at a certain time, the pay commences from that date, whether she be with the patient or not. Sometimes a patient is better satisfied to know that the nurse is within easy call, than to have her waiting in the house.

As a rule, the trained nurse is an edu-

cated, refined woman. She should be treated as one of the family and not made uncomfortable by forced seclusion. That she is human is a fact too often forgotten. She cannot work night and day without sleep anl rest. To give the best she has in nursing skill she must have her rest and sleep, as well as a daily outing of at least an hour. She is expected to be at all times immaculate in her costume, therefore she is obliged to wear washable gowns and aprons, which require frequent changes. It is evident, then, that her laundry should be done at the house where she is nursing.

Relatives at the Confinement.—As a rule, friends and relatives are in the way at this time. The patient is much better off in the absolute care of the physician and nurse. The sympathy of the patient's mother, for instance, so frequently interferes with her usual good judgment that the welfare of the patient may be jeopardized.

The Lying-in Room.—When the nurse calls to do the sterilizing, the room for the confinement should be selected. This must be one with plenty of sunlight and fresh air, in a very quiet part of the house, on the same floor with the bath room, and should connect with other rooms for the baby and nurse. It should contain an open fireplace, which always gives good ventilation and in which a fire can be had during cold weather. There should not be a stationary wash stand in this room.

All draperies at the windows and about the bed should be removed and the carpet taken up. The furniture should be as simple and plain as possible, such as can be washed.

The room should be thoroughly cleaned and aired, and if possible, fumigated, including the mattress. A single bed is better than a double one.

The Show.—This is a term given to a discharge which often comes on a day or two before labor and which consists of a thick mucus, more or less stained with blood. This discharge indicates that the lower part of the womb is dilating.

The bag of waters may rupture before the beginning of labor; if it does there is no reason to be alarmed. Go to bed and send for your physician.

Labor Pains.—During pregnancy the uterus alternately contracts and relaxes, becoming hard and soft at shorter or longer intervals. A woman is made aware of this by the abdomen feeling hard and seeming to rise up higher, then it becomes softer and settles down again. When labor begins the same dition will be felt, but with each contraction there will be a little pain radiating around to the back. Usually these pains or contraction are far apart, perhaps one hour, or a half an hour, and as time goes on, the intervals shorten. The pains are usually felt in the back; then as the intervals grow shorter, they move more to the front. When there have been two or more such contractions with pain, the physician should be notified and the nurse sent for.

The nurse will now be employed in making those preparations for the confinement which have been found to conserve the best interests of the patient.

First, the bowels will be moved by an enema of soap and water. The pubic hair will be clipped or shaven. Following this a full bath is given, using plenty of soap and warm water. This bath should be given with the patient standing in the tub and followed by a shower. The lower part of the body, or from the breast to knees, is now washed with a solution of bichlorile of mercury, 1-3,000. After a thorough drying with sterile towels, underclothes which have been sterilized are put on and over this a wrapper. Unless the hair has been washed within a day or two it should be done now. The patient may or may not lie down, depending upon

her own inclinations and how far the labor has extended.

The room has been prepared as before stated and kept warm because of the thin clothing of the patient.

The bed is now prepared by covering the mattress with the rubber sheet. On this is placed a clean white sheet and over this a smaller rubber sheet. Covering the latter is a white sheet once folded and placed across the center of the bed and doubled under the mattress on either side. This is called the draw sheet. All are now pinned firmly to the mattress with safety pins.

From now on the bed must be kept clean and free from contamination by outside influences. For instance, the husband or any other member of the family coming into the room or assisting at the bedside must be provided with a sterilized gown.

The birth of the baby is now a matter of a short time, and in the next chapter we will consider briefly the care of the mother.

CONVALESCENCE FROM CONFINEMENT.

Following the birth of the baby there is a period of a few days when the mother is absolutely in the care of her nurse, and therefore, it is not necessary here to give any direction to the mother. The nurse is the representative of the physician at this time, and will carry out his instructions. Her ideas may not correspond with those of the family or friends, but it should be remembered that this is not her first case, and that she is obeying instructions. She is supposed to be an experienced person, who should not allow interference. This period may be made very irritating to the patient and embarrassing to the nurse by outside interferences. In most cases when differences arise between the nurse and family, the fault is with the inexperienced family.

Company.—The nurse must refuse to admit anyone to the sick room, except immediate members of the family. As convalescence advances there is no reason why a friend or two may not then be admitted. The nurse must be the judge as to whom the visitors may be, and as to the length of the visit. Most women want rest at this time and company tires them, but a happy, cheerful friend will often act as a tonic. Time passes rapidly between the care of the mother and of the babe. First, there is the toilet of the mother; then that of the baby; then the forenoon lunch and the nap. At regular intervalus comes the nursing of the baby. There is not much time for company. Other reasons why friends should not be admitted are that they often make the patient nervous, and that they may carry infection.

Rest and Exercise.—When we stop to consider what the mother has gone through during the past nine or ten months, it is difficult to understand how any sane person can argue that a convalescence involving a certain number of days in bed is unnecessary. In the best interests of the patient, both mental and physical rest is demanded.

After the first week, and while still in bed, a little exercise in the shape of general massage should be given every day. A few exercises with the arms and legs, together with deep inspirations, are very beneficial and can be taught the patient by the nurse.

Getting Up.—The time for getting up depends upon circumstances. There are some whose recovery is so rapid that they are able to get out of bed in one week, while others require two, three or even four weeks of rest. Much depends upon the character of the confinement and the recuperative powers of the woman, and also upon the character of the lochia. When the lochia (the flow from the womb) has gone through the characteristic changes and is no longer red, but white and scanty, the womb is considered to be in an ad-

vanced stage of involution and the mother is advised to sit up, provided she is in a healthy condition otherwise.

It was formerly the custom to order the patient to sit up on the tenth day regardless of her condition, but experience proves that two weeks is the average length of time which the patient should remain in bed after the birth of her child. On the day set the mother is allowed to sit up for one-half hour in the morning, and if this does not fatigue her, she may sit up again for the same length of time toward evening. The next day, the time is lengthened probably one-half hour, and so on from day to day, and at the end of three weeks she can be taken down stairs. At the end of four weeks, if the weather is favorable, a short ride is allowed. Should the flow recommence, the woman is immediately put in bed, to remain until it has ceased.

From now on the recovery should be rapid. Unfortunately, however, many mothers are compelled to take up, with the additional care of a baby, their household duties where they left them, two, three or four weeks ago. A few are able to thrive under this, but the majority are not, and its result is manifested by backache, lassitude, diminished milk supply and frequently a general breakdown.

The new mother should be free from care and worry, be able to take regular outdoor exercise and obtain as much uninterrupted sleep at night as possible. Fresh air is as necessary to the mother as to the baby. The outings should be in the parks and not in the crowded, poorly ventilated stores.

(To be Continued.)

TREATMENT OF PELVIC INFECTIONS

By F. W. VANKIRK, B. S., M. D.
Janesville, Wis.

In taking up the non-surgical treatment I shall consider only methods applicable to puerperal infection and acute gonorrhoeal infections, for, after the diagnosis is made in other cases, the treatment is purely surgical. After the diagnosis is made in either of the above conditions, the first requirement is absolute rest in bed; second, for the pain, codeine is given in one-half grain doses and repeated whenever necessary. In most cases it seems to answer the purpose as well as morphine and does not tend to mask the symptoms. Third, an ice bag is placed over the lower abdomen. Fourth, cathartics are given to insure a free bowel movement daily. If for any reason active catharsis is contraindicated, daily bowel movements are secured by means of enemata. Fifth, the diet should consist of light nourishing foods, principally liquids, and sixth, the patient should have all the fresh air and sunshine obtainable. In cases where the patient is profoundly toxic or where the patient takes but a small amount of liquids, normal salt solution is usually given per rectum, preferably by the drop method.

In puerperal sepsis under this treatment the pelvic exudate which has formed will gradually disappear in the majority of cases and the temperature will return to normal; however, if after a number of days, no improvement is noted and a vaginal examination reveals some point of fluctuation, or if one is apprehensive of an ovarian abscess a vaginal section is justifiable.

In gonorrhoeal infections, with but few exceptions, the acute symptoms will subside under this treatment and the temperature will come to normal. Unlike the puerperal cases, some pathology generally persists, which usually calls for some operative interfer-

ence later, yet many cases will go on to complete resolution, for when patients are operated on for some other trouble, who have suffered from an acute pelvic infection sometime previously, often no sign of any previous inflammatory trouble is to be found.

The advantage of this conservative treatment in these acute cases is that it is so much safer for the patient to be operated on after the temperature has reached normal, for this is generally an indication that the pus present has become sterile. Repeated examinations of the pus found in such cases has shown no bacteria. Some authors hold that an acute exacerbation of pelvic trouble is simply a lighting up of the infection (which has been lying in a quiesent state) from some exciting causes; but I believe that all such acute exacerbations are due to reinfections and that these recurrences will continue until the source of the infection is cured.

As regards the operative treatment, so much has been written by different authors that I would not have time to go into them all, but there are a few points in the treatment of the different conditions that are worthy of mention.

In puerperal cases where there is some retained plancenta or membranes, these are preferably removed by the placenta forceps or the finger, as there is less danger of opening up uterine sinuses and consequently less danger of the spread of the infection. At times, it is necessary to use a dull curette to remove some shreds of tissue, after which the uterus is wiped out with gauze but not irrigated, drainage is not necessary as the cervix is so well dilated.

In puerperal infection, due to incomplete abortion, we often find the os rather rigid and that it will not admit the placenta forceps or the finger. In such cases, I believe the best treatment is to introduce a gauze packing into the uterus a,lso a vaginal packing. This stimulates uterine contractions and generally, after leaving it over night, we find the uterine packing in the vagina and also the retained products expelled. If, however, the products of conception are still in the uterus, we find that the os is so well dilated that they can be readily removed.

By rapid dilation in these cases there is danger of rupture of the cervix and of opening uterine sinuses, thus increasing the danger of further infection.

In cases of pelvic abscess, from whatever cause, an incision is made posterior to the cervix, the pus evacuated and the cavity wiped out with gauze, after which an iodoform gauze packing or a plain gauze packing is introduced into the cavity, a little of the packing to be removed each day following the first twenty-four hours, thus giving the cavity a chance to gradually contract down. It is in but few cases that drainage has to be re-established after the gauze is all removed, but in some cases it is found necessary to introduce a rubber drainage tube, which may have to be irrigated if it becomes blocked. I believe that irrigation of a pelvic abscess after it is first opened, is contraindicated, as it might be the means of breaking up adhesions and spreading the infection.

In regard to the gauze used in packing an abscess cavity, I prefer the plain gauze to the iodoform gauze. I can see no advantage in using the iodoform packing, and at times when it is used we have symptoms of acute iodoform poisoning, which of course calls for the immediate removal of the packing. Another fault is that if these toxic symptoms appear they tend to mask the actual picture of the case treated.

In cases of ruptured ectopic gestation, equally good men advance the

different theories: first, immediate operation, and second, that of waiting until the general condition of the patient has improved; but I am inclined toward the former teaching. The extent of the operation in these cases depends, in a large measure, on the condition of the patient. When possible, the tube on the affected side and the blood clots are removed, but in other cases the bleeding point is simply ligated and the abdomen closed. Vaginal drainage is never instituted, for with vaginal drainage we are bound to have infection.

The result of this conservative treatment, as I have witnessed it in a large number of cases, both puerperal and gonorrhoeal, has been uniformly good and nothing in recent literature has appeared to shake my faith in the same.

OPHTHALMOLOGY

By C. G. DARLING, M. D.
Chicago, Ill.

Relief of Eye-Strain in High Astigmatism by the Use of a Different Axis of the Cylinder for Distance and Near.

Of late I have seen two cases of high astigmatism in which the patients received a great deal of relief by having their cylinders set at a different axis for reading and distance.

I had never heard of this being done and thought it might be of some interest to the members of this society.

The first case was a man of 51 years who had a high mixed astigmatism. He was unable to read for more than a few minutes at a time without his eyes and head aching and print blurring.

He was wearing R. E. sph. 1.75 cyl. + 4.150 Axis 120. L. E. sph. 1.75 cyl. + 5.00 Axis 60° with a sph. + 2.00 added for reading, the distant correction giving him normal vision in each eye. He also had about a dozen prescription for glasses, some, he said, were about as good as the ones he was wearing, and others he could not wear at all.

I found that his glasses were what he should have for distance, but when testing for reading I found by trying one eye at a time he could see much better if the cylinders were rotated out 5° in the right eye and 10° in the left from the axis we had found best by monocular test for distance. These were ordered and he reports perfect comfort of his eyes for distance and near since the change, now over eight months.

The other case I have to report was a young lady of 25, the left eye being ambylopic as a result of a convergent strabismus which had been corrected a few years ago by operation.

She obtained 20-25 vision with a sph. + 1.00 cyl. + 5.50, axis 115° which i ordered. Three weeks later she returned, saying she could only read a short time with her glasses. I then tried turning the axis of her cylinder out while she looked at fine print held at the reading distance, she found this to be more comfortable and the print was also clearer. I again tried her distant vision and she accepted the cylinder as before for distance. She reports being able to read with comfort with the special reading glass in which the cylinder is placed 10° different from her distant lens.

I find Culbertson in a paper before the A. M. A. in 1888, recommending rotating cylinders out of the positions indicated in monocular tests and by doing so he found that he obtained comfort for many of his patients. He did not give different axes for distance and near and he probably relieved a cyclophoria in the cases benefitted.

Most of the students of the eye mus-

cles and their action, believe that when the eyes are turned from the primary position, for example, converged and turned down as in reading, that the vertical meridian no longer remains vertical, but is rotated on the anterior posterior axis of the eye, this wheel motion being known as torsion. When not excessive, they believe this to be a normal, necessary, physiological process.

These students of the movements of the eye do not know why torsion is necessary and also do not know why it does not produce diplopia, but they believe it is necessary for sterescopic vision. Torsion is not the cyclophoria of Savage, or the declination of Stevens which are phorias and are elicited when the eyes are disassociated.

Savage is the only authority I have read who does not believe torsion takes place as a physiological process.

The amount of torsion which takes place in normal eyes has been measured by different methods by many men, among them Volkman, Helmholtz, Herring and Donders and tables have been given by some to show its amount when the eyes are in different positions. These vary somewhat, but Howe believes they are as constant as the measurements of accommodation, convergence or of other physiological experiments.

The amount of torsion depends on the amount of convergence and accomodation which is exerted, and also, on the position of the plane in which the visual axes lie.

In Landolt's table, of which I will only give the degree of torsion for a few positions, the amount of tilting out of the upper ends of the vertical axes when the eyes are in the horizontal plane are given as 1°30′ with 5° of convergence to 6°50′ with 30° of convergence. When the eyes are turned up 25° and convergence 30° we get the large amount of 16°30′. When the eyes are converged and turned down as in reading the amounts of torsion are small and approximate the amounts of torsion in the horizontal plane with the same amounts of convergence.

So we see the amount of torsion in the ordinary reading position is very small as a rule. But there may be excessive torsion in some cases, and if this is combined with a high degree of astigmatism considerable strain of the eye muscles may be set up as the patient will try to make the axis of his astigmatism correspond to the axis of his correcting cylinders in all positions of the eyes, this strain will correspond to that produced when we turn a strong cylinder a few degrees away from its proper axis and a cycloduction has to be made to make the axis correspond.

Howe says "excessive torsion seems rather rare, but perhaps that is only because exact measurements of it are comparatively few and if we would study their relation to astigmatism we might find they were more important and more frequent than is usually supposed.

He also says "in certain cases excessive torsion produces the most annoying and obstinate symptoms with which we have to deal."

♣ ♣ ♣

SPLITTING OF FEES.

Governor Marshall in his message to the Indiana Legislature recently said: "In the interest of high professional training I recommend that the act creating the Board of Medical Registration and Examination be amended so as to require the Board to revoke the license of a physician who splits his fee with an expert physician or surgeon."

♣ ♣ ♣

Be as charitable as you can toward those who see things not as you see them. For maybe you are wrong. It is possible.—Stevens, Eclectic Medical Review.

MEDICAL PRACTICE IN MEXICO

By H. D. EATON, B. A., M. D.
Shopiere, Wis.

Read before the Rock County Medical Society, February 25, 1913, Beloit, Wis.

In a foreign land like Mexico, where you are as truly in "another world" as if you had crossed the seas to another continent—instead of stepping over a puny river to another part of the same continent—you will find the practice of medicine differs in scores of ways from what you are accustomed to in your native land. Yet as a rule, people seem to be surprised when I tell them that I had quite a different line of ailments to treat in Mexico from what I have here, and it also appears to surprise them to be told that most of my practice in Mexico lay among the Mexicans, and that American patients are seldom encountered. Many people in this part of the country have a vague idea that "Mexico" means the State of New Mexico, unless one takes pains to specify "Old" Mexico; or else they have an idea that Mexico contains nearly as many Americans as Mexicans and that the latter don't count for much anyway.

If a foreigner undertakes to practice any profession in Mexico, he must "do in Rome as the Romans do," and by "foreigner" I mean any stranger, whether an American, an Englishman or a German—he must learn to use the Spanish language, think Mexican thoughts and adapt himself to the ways of the country, as far as he is able. Furthermore, he must expect to labor among the poor and the ignorant, the superstitious and the uncivilized, to a much greater extent than in his native land, unless he is accustomed to practice in the slums of great cities. The rich and the educated, the clean and the luxurious, are few and far between in the land of the Don and the hovel of the Peon.

A foreign M. D. doesn't have to pass an examination to practice in Mexico, except in the Federal district, which corresponds to our District of Columbia. Even there he can practice without taking an examination, if one of his confreres will sign his death certificates. All that is necessary is a diploma from a reputable college, legally certified to by the proper authorities. In fact any kind of a quack or "healer" may exploit the long suffering and confiding public, to an even greater extent than they can here, and that is a scandal in these enlightened United States. Among several other quacks of different nationalities, there was a certain Chinese "doctor" in Chihuahua whose office was in the filthiest hole of a Chinese laundry, who had quite an extensive practice among the ignorant Mexicans, and the decoctions he used to give them were fearful and powerful, but not very "tute et jucunde," from what I learned from ex-patients of his.

Strange as it may seem, a doctor may do considerable advertising, and not lose his standing among the profession, or suffer socially. Still a doctor is expected to keep up appearances to a greater extent than in this country. All the M. D.'s have their drivers, "mozos," or chauffeurs, whether they really need them or not, and most of them sport silk hats and frock coats, some constantly and all of them on Sundays and at social events.

Professional ethics, in our understanding of the phrase, is almost an unheard of thing. It is, every man for himself; especially as, in addition to the usual professional jealousy, there is the further element of racial jealousy and friction between Mexican and American physicians, however polite and cordial the former may appear to be on the surface.

The author of a recently published book on Mexico says in speaking of

Mexican doctors: "The representative Mexican physician, I believe, knows as much of the theory of his profession as the American physician, and has done more reading aside from his profession; but for applying his knowledge to cases commend me to the American. I have known of some unfortunate experiences with Mexican doctors, and particularly surgeons, for whom as men of culture and of intellect I had great respect." This testimony coming from a layman, who shows by his book that he is a fair-minded and shrewd observer, is very interesting to me, as it confirms my own observation of Mexican doctors.

Medical societies are almost unknown among Mexican doctors outside of Mexico City where is located the only medical college in the country. Three American physicians, of whom I was one, tried to co-operate with a half dozen of the score or so of Mexican M. D.'s in a city of 30,000 to keep a local medical society alive, but it succumbed to a complication of childhood's diseases at the tender age of three. So far as I know there is no national medical organization among the native profession. However, about thirty English speaking physicians located in the principal cities of Northern Mexico, and in isolated mining camps, did succeed in starting an "International Medical Association of Mexico," which has held five very successful and interesting annual meetings. I count it a privilege and an honor to have been one of the charter members of that society. The meetings were the most interesting, practical and alive, of any that I have ever attended. They form the brightest spots in my recollection of seven years spent in a country where medical meetings are rare and where you have to travel from 200 to 400 miles to get to one when they do occur, and where post-graduate work is out of the question.

The fees one gets in Mexico, though they sound higher than here, are not so when one takes into account the difference in money and the higher cost of living. You who live here in the Middle West can have no idea how high the cost of living can soar, until you go West, or Southwest, across a high protective tariff wall and have to pay, in addition to the cost of transportation, a heavy duty on food and clothing. Practically all the necessities of life have to be imported when you are living in an oasis in a desert, where almost nothing is manufactured except cigars and "tortillas," beer and "pop." Then there are taxes—municipal, state, and federal—but that is another story.

The climate of the main plateau of Mexico is hard to beat. It would be almost ideal if it were not for the dust storms of February and March, and at intervals throughout the year. It is also a little too dry. It is just as good a climate for the victim of tuberculosis as that of Colorado and New Mexico, but it is my observation that while a temporary sojourn is beneficial, too prolonged a stay in that high and dry region, without occasional migrations to sea level and moisture, is prejudicial to Northerners, even those who are perfectly healthy when they arrive. It seems a little queer at first that the Mexicans, who are favored with such an ideal climate for the cure of tuberculosis, should fall such easy victims to its ravages, but when one observes their mode of life, their fear of fresh air as shown by their habit of covering their mouths with their "serapes" whenever the air is the least bit chilly, and their taking particular care to exclue air from an injured person by almost smothering them with head-wrappings, and their habit of sleeping a dozen in a room with all the windows and doors tightly closed except in the hottest weather, then one is no longer surprised at the prevalence of tuberculosis among them.

Modern sanitation and the laws of hygiene are almost unknown. It is true that many of the larger cities have a fairly good system of water supply and sewerage in the business districts, but the absolute lack of sanitation in the "slums" and the immediate outskirts of the cities, is appalling to the newwcomer. If it were not for the germicidal properties of strong sunlight, of which there is a plenty, and for nature's flushing of the streets and by-ways during the short but vigorous rainy season, "filth diseases" would be even more prevalent than they are. As it is, gastro-intestinal diseases, dysentery and typhoid fever are very common. Typhoid, fortunately, usually runs a milder course than in the North, resembling the para-typhoid of our recent text books.

About one person out of every ten or twenty carries a tapeworm concealed about his person, and many a Mexican has paid ten hard-earned silver dollars for the privilege of having a "tape-worm specialist" remove a Taenia Saginatta "while you wait" in his or her office. They say she always produces one—perhaps she keeps a supply on hand and smuggles them into the vessel! At any rate she insists on the patient staying in the office until the medicine acts. It is claimed that nearly everyone that consults the "specialist" is told they have a "lumbrice." It is not hard to believe, after seeing the sickening amount of human excreta that encumbers the surface of the ground everywhere except in the business section of the cities, and also the numbers of pigs and other domestic animals that are allowed to roam around and help themselves to all the offal of human habitation.

Small-pox is also very common, and is it not a "filth disease" too? Every Mexican expects to have it, just as the average American expects to have measles as a part of his curriculum, and with as little reason.

Right here I will digress to mention the fact that the average Mexican peon or "greaser," takes a bath not oftener than once a year. On St. John the Baptist's Day all devout Mexicans of the poor class, make a pilgrimage to the nearest available stream and devote the whole day to a carnival of bathing. They do such a thorough job of it that they don't trouble to repeat the process until another year rolls around. One can scarcely blame them for not bathing oftener when one considers the conditions under which the average laboring man's family lives—one or two adobe rooms with dirt floors and about a dozen inhabitants to each room, not counting cats, dogs, chickens, parrots and pigs. Water is a luxury, generally having to be fetched from a distance—hard water at that—and fuel for heating is also a luxury.

Uncleanly habits plus the dust storms—really sand storms—and the blinding sunlight reflected from white-washed walls, result in a large amount of eye trouble, from ordinary sore eyes, blepharitis, phlyctenular conjunctivitis and trachoma, to glaucoma and a bumper crop of cataracts, to say nothing of the many sightless eyes telling of the ravages of the diplococcus of Neiser. Mexico offers a fruitful field for American occulists, otologists and laryngologists.

The food and the water, not forgetting the "fire-water" that enters the average Mexican's stomach, accounts for the prevalence of gastro-intestinal diseases such as catarrhal enteritis, dysentery, mucous colitis, and gastric and duodenal ulcers. I refer to the famous frijoles swimming in grease, the half-baked tortillas and the plate-fulls of chili eaten three times a day the year around. The poor, over-worked livers! No wonder there are so many hepatic abscesses and so many cirrhoses.

Another specialist that will find a good field in Mexico is the doctor who

is fond of treating venereal diseases. And yet gonorrhea seems to be of a milder type than in the North. It must be because it is so universal that the people have acquired a partial racial immunity. The ravages of syphilis, on the contrary, are all too evident on every hand, or shall we say rather "on every face." Perhaps this is partly explained by the fact that a Mexican can seldom be induced to take a thorough course of treatment for that mild-seeming albeit, protean malady. "Salvarsan" will be a boon to the leutic Mexican if it proves to be true that only two or three injections are necessary for a complete cure. It is interesting to note in connection with Dr. John B. Murphy's advocacy of hypodermic injections of cocodylate of soda in syphilis that it has long been a favorite remedy among the Mexican doctors for anemia or any kind of cachexia.

Leprosy, mostly of the tubercular form is quite frequently encountered. I saw several cases during my stay in Mexico. There is no attempt made at segregation as there seems to be no fear of contagion. One case that I treated with Chaulmougra oil seemed to improve until her stomach rebelled and she had to stop taking it.

I assisted an American doctor operate on a case of elephantiasis of the vulva the like of which I never expect to see as long as I practice in this region. I don't remember how much it weighed, but it was enormous. It was about like a distended cow's udder hanging between the woman's legs, and the odor that came from it is more easily imagined than described. How the woman let such an impediment go so long without consulting a doctor it it hard to understand. Dr. Shaw deserves great credit for the good results obtained in this his first, and probably the last, case that he ever saw.

The Mexicans are a hysterical people. "Oh doctor, come quick, my daughter is having a fit—an "ataque" —soon grows to have a familiar sound and what to do to the neophyte is an alarming and puzzling case—a woman fighting and struggling like a tiger so that the combined strength of a half a dozen persons scarcely suffices to restrain her—clears up like magic, when, under the diagnosis of "hysteria," he administers a hypodermic of apomorphia. I got so that I never felt safe unless I had a tube full of apomorphine in my hypo case. Another form of hysteria frequently encountered but not so easy to cure, is the "coraje," an unreasonable state of mind with its deleterious influence on the body, the result of suppressed anger and self-brooding over some real or fancied wrong or insult. About the only treatment is to give them a good cathartic and then let them alone.

The Mexican hospitals leave much to be desired, especially in the matter of attendants. Americans who are able to, will travel hundreds of miles to avoid being operated on in a Mexican hospital. The hospitals generally have plenty of surgical instruments, sterilizers and other paraphernalia, but good, intelligent, trained nurses are a scarce commodity. The government institutions for the most part are content with male orderlies of the lowest class of intelligence, and some of the examples of cruel neglect of indigent patients that have come to my notice, have been pitiful in the extreme. Wounds have been left alone until they were actually alive with maggots, and as a rule the patients are treated with less sympathy and consideration than the dumb animals are here.

The state hospital in the city of Chihuahua is a splendid building, or rather, series of buildings, each ward being separate on the pavilion system, with cement floors and lofty ceilings, but there is practically no provision for heating. The operating pavilion is located in the center of the grounds

and is splendidly equipped with the latest aseptic glass operating table, the latest style of nickle-plated sterilizers, and a perfect arsenal of instruments; but the patients have to be in the open air on their way to and from an operation. The doctor who was at the head of the hospital while I was in Chihuahua, was a relative of the governor who appointed him. He was a regular grafter, holding several salaried government positions, including that of president of the State College and official vaccinator for all the school children. In fact vaccinating was about the only thing he could do well. He certainly didn't have much of a private practice. He made daily calls of inspection at the hospital, but he let subordinates do all the work, while he devoted most of his attention to buying new equipment and supplies. No city doctor was allowed to have anything to do with a patient that he might send to the hospital. I understood that with change of governors brought about by Madero's revolution, things were changed for the better, but I am afraid there is still considerable room for improvement.

Mexico, after all, is but a semi-civilized country just emerging from the thraldom of ignorance and despotism of Spanish mis-government, and its citizens have very much to learn before they can attain to the state of civilization enjoyed by our native land—and even here there is plenty of room for improvement and progress.

It is an interesting country to travel in, or to live in for a while, but an American who makes his home there sacrifices more in the mental and spiritual pleasures of life than he gains in a material way, if he happens to be prospered more than he would in his home land, which I doubt the average professional man is.

MISCELLANEOUS

TWO INTERESTING OBSTETRICAL CASES.

By J. H. Liebkemann, M. D., Memphis, Tenn.

CASE I.

Patient Mrs. E. G., age 22, white married. Called on me Feb. 9, 1913. (Nativity American.) General history: Had been treated by several physicians for malaria, anemia, etc., with no results.

Present condition, her appearance was that of an anemic. Very sallow, weight little over one hundred pounds. Gave a history of chilly sensations, pains in the ovaries, backache, severe headache, irregular bowels and thought she had fever at times. Asked if she suspected pregnancy, she answered no. I gave her a saline laxative and asked her to call next day, that I would have a consulting physician and we would make a thorough examination before advising course of treatment. Feb. 10, on examination we found no positive evidence of pregnancy. The cervix erroded, and mucus discharge. We put her on depleting antiseptic suppositories, hot douches, and a general tonic course.

Feb. 13. Passed what looked like a human embryo about 3 weeks old, a few clots of small size and had what looked like a natural monthly discharge. No bronchial odor.

Feb. 16. Had a chill, fever and some pain, which a simple prescription controlled. Feb. 17. I ordered a tonic containing quinine, iron etc. On this day my consultant, Dr. J. H. Mahan made a friendly call for me and ordered a prescrpition containing quinine, antipyrine and aconite.

Evening of the same day, I was called, and delivered her of an em-

bryo that looked to be about 6 weeks old and the afterbirth looked much older.

Feb. 18. I made an evening call. She complained of peculiar pains. Being a primipara I did not credit them with being after pains. Ordered Papine, but several doses of this did not relieve. Finally her husband gave her a big drink of whiskey, I would judge about 2 ounces. This relieved the pain and gave her a good night's sleep.

Imagine my surprise, when on my morning call Feb. 19, I delivered her of another afterbirth, about the size of a hen's egg. Feb. 20, contrary to my orders she and her husband took a walk of some twenty blocks, attended the theater in the evening, and next day said she felt as well as she ever did in her life.

CASE II.

Patient Mrs. N. B., age 35, white, married 12 years. (Nativity American). General history: Under treatment for nine years by eight or nine physicians for female troubles. Had taken every remedy in materia medica indicated for dysmenorrhoea or painful menstruation. At each monthly period she woull bend like a half moon, Opisthotonus, convulsions, etc. Had small pox, bilious fever, la grippe, and some diseases of childhoood, measles, whooping cough, etc. Eight physicians wanted to operate, for what she did not know, as the only reason they assigned ,was, she needed an operation.

After a careful examination, all I could find was a poorly developed womb. Mammary glands none to speak of. Glands more like a male than female. I did not venture a diagnosis, nor prognosis. My words to her were: You no doubt have had everything in the way of medicine known to the profession. I advise electricity.

Began treating her Sept. 13, 1910, with intra uterine electrodes within the womb. Starting with the smallest size and abdominal pad, using Faradic current. Continued treatment 3 times a week until April 26th, 1911, when she left city for her country home.

On July 12th, 1912, I delivered her of a 7½ lb. girl baby, by forcep delivery. The mother and child had some little ailments for a few days. At the present writing both are doing well and the baby weighs 16 lbs. They call it, the "electric baby.'

This case I consider interesting from the fact that the simple introduction of electrodes into the womb enlarged it from 1¼ inches to 2¼ inches using only the Faradic current. Then when we consider she was married 12 or 13 years before bearing a child, it does seem proper to call it an "electric baby."

BROMINE.

By J. A. Burnett, M. D., Hartshorne, Okla.

Bromine is obtained from sea water. It is a heavy red liquid which boils at 63° C. or 145 F. It is quite volatile, giving off red fumes but not so volatile but what it can be measured in a glass graduate provided it is fairly cool. It will not blow the stopper out unless it becomes quite warm but should be kept in a cool place. In opening a bottle of bromine gently tap the glass stopper the strokes being upward and of course, care being used not to exert sufficient force to fracture the glass. It is best to take a bottle of bromine out in the open air before opening and keep it out at arms length and if there is any air blowing keep the bottle in the direction from you that the wind is going. If the full strength fumes are inhaled they are irritating to the mucous membranes but it is not very lasting if only a small quality is inhaled.

Full strength bromine is caustic if spilled on the skin and allowed to remain any length of time but if washed off immediately it does not leave any bad effect.

Some say the burns from bromine are very painful and hard to heal. The burns can be treated with a paste of bicarbonate of soda or a mixture of lime water and linseed oil called carrion oil. The dose of bromine is 2 to 3 drops well diluted.

Bromine combines readily with alcohol ether choroform and soluble in 33 parts of water at 59° F.

When added to water ozone is said to be liberated.

Shoemaker says: "It is unfortunate that the smell of it is so obnoxious since it is a true disinfectant rivaling mercuric chloride and it is claimed has even more influence than that agent in preventing the development of spores. A two per cent solution in water destroys spores of anthrax."

Bromine is used internally, externally and by inhalation. For information on the inhalation use of bromine see "The Treatment of Pulmonary Tuberculosis by Bromine Inhalation" by Dr. Chas. E. Davis, June 1911, Wisconsin Medical Recorder and my article "Inhalations," June, 1911, Wisconsin Medical Recorder. The internal effects of bromine resemble iodine and chlorine, causing death from paralysis of the brain centers, death resulting from paralysis of respiration. For caustic effect bromine has been used in alcohol 1to 2 or 3 in hospital gangrene and in gynecology as an application to cancer of the uterus.

Diluted with sweet oil ten drops to one ounce it is a sedative dressing for rhus poisoning. Bromine is employed like carbolic acid as a disinfectant for drains but is too offensive for use this way in the sick room.

In speaking of the inhalation of bromine for pulmonary tuberculosis Dr. Chas E. Davis says:

"From close observation for years I am persuaded that could it be introduced into the circulation without too great disturbance of nutrition it would prove both a 'specific' and cure."

On account of the irritating effect of bromine likely it could not be diluted with any substanceso it could be used hypodermically. However, as the dose is very small it may be possible to dilute it with oils like peanut oil or olive oil and injected hypodermically. From one-half to one ounce of olive oil can be used at one time hypodermically without causing irritation.

Peanut oil is said to be less irritating than olive oil.

Possibly bromine could be diluted with some substance and driven in with the galvanic current.

TYPHOID FEVER.

By M. E. Johnson, M. D., Pittsburg, Kansas.

In this article I wish to tell the manner in which I treat typhoid fever successfully and very seldom have a case where the fever runs over 21 days, generally the fever lets up in from 14 to 18 days, and many cases in less time than this, and they all have a pleasant sick spell (if a sick spell can be called pleasant). By comparison with the old way it's very pleasant, for they never get into that low condition where they have the delirium, incoherent and muttering condition, do not become emaciated and soon recover their former strength early and resume their vocation in a few days after the fever stops.

The bowels never bloat, they will sleep and eat well most of the time. The tongue never becomes dry nor are there sordes on the teeth. No bed sores, kidney and bowels always act well. The fever is never allowed to remain high

for any great length of time. It is kept below 103 except on rare occasions when it may go higher, for a short time, but not allowed to remain high long. My object is to keep the temperature around 102 not letting it remain long above 103 at any one time. Now where the bowels and kidneys are kept well cleaned out and the temperature kept low they will go through with but little damage and soon recover their former health. How I do this. First clean the bowels out well with a few doses of calomel and bismark, say about 4 doses of 5 gr. each given 4 hours apart followed with castor oil, then an occasional small dose of calomel and bismuth followed with castor oil, or phenolphthalein to keep bowels moving well throughout the entire run of the fever.

Acetanilid and salicylate of soda equal parts are given in from 2 to 4 gr. doses as required to keep the temperature within reasonable bounds, around 103 or lower. This is followed through the entire course of the fever. This powder does many things besides lowering temperature and they are all for good.

I give intestinal antiseptic all the time after the bowels are cleaned out well. Have tried many kinds but seem to have betters results from the Sulpho. Carbolates (Abbott's) the fever is easier to control and the kidneys act better when this is given it seems. Have never offended the stomach with this.

Ecthol or echinea is given to prevent the breaking down conditions of the fluids and has antiseptic properties, on the blood. This is given all through the run of the fever, from start to finish.

Where there is any thing required for nervousness or sleep passiflora (Lloyds) is given in doses sufficient to accomplish the desired results and it will do it when enough is given.

Some cases will complain of pain in stomach or bowels occasionally codeine is the best thing for this, a very small amount being required. Where anything is required for the heart I give the compound heart tonic tablets. Some cases are benefited by very small doses of strychnine 1-100 gr. at 8 hour intervals. Where this line of treatment is rightly carried out little else will be required in the medicine line.

I keep my patient clean but do not care for much bathing and never allow cold to be used externally. I shun it as I would the Devil, neither do I allow him to drink ice water, but instead give all the cool water that he can be induced to drink.

I would about as soon shoot them, as to give them sweet milk, both being about equally dangerous, for by giving sweet milk in large quantities you fill the stomach and bowels with a medium for the cultivation of the very things we are trying to eliminate and kill.

There will be something gained by washing the bowels out about twice or three times a week with a warm salt water solution.

This course of treatment and plan of management has enabled me to cure every case coming under my care (with one exception and that one died from hemorrhage on the tenth day after I saw it) in the last 20 years not one death and few where the fever run for 21 days and only one relapse and that was because I allowed the patient to drink a lot of sweet milk on the 17th day after the fever had been gone for 3 days.

♣ ♣ ♣

Fortunately, it is now a great and growing function of the medical profession to search out the laws about epidemics, and those outside enemies of man, and to teach to you, the public—dull, stupid pupils you are, too, as a rule—the ways of nature, that you may walk therein and prosper.—Osler.

The Wisconsin
Medical Recorder

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PUBLISHED BY
WISCONSIN MEDICAL RECORDER
JANESVILLE, WIS.

SUBSCRIPTION PRICE

$1.00 per Year in Advance; Single Copies 10c in the United States and Mexico.
$1.25 per Year in Canada.
$1.50 per Year in Foreign Countries in the Postal Union.

ORIGINAL ARTICLES are solicited from our readers. We wish articles which are sent us to be contributed exclusively to this magazine. We will send the writer of any original article, if desired, twenty-five extra copies of the number containing the article. We are also willing to send copies to the professional friends of the author.

LETTERS, CASE REPORTS AND QUESTIONS are desired for our Discussion Department.

We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Reports and items of interest are gladly received.

VOL. 16 MARCH, 1913 No. 3

MEDICAL ETHICS.

In looking over the last number of The Journal of the American Medical Association, I find a proposed addition to the Hippocratic Oath. It has to do with the answers given by physicians when asked their opinion of their fellow practitioners, and is as follows:

"That you, at such times.....never shall
"With arms encumber'd thus, or this head shake,
"Or by pronouncing of some doubtful phrase,
"As, Well, well, we know; or We could, an if we would;
"Or, If we list to speak; or, There be, an if there might;
"Of such ambiguous giving out, to note
"That you know aught of (him): this not to do,
"So grace and mercy at your most need help you,
"Swear." —Hamlet, I, 5.

It seems that if ever an addition should be made to The Hippocratic Oath, the above would be the most appropriate. How often are we asked the opinion of our fellow practitioners? How often do we weigh our answers before giving them? Yet if we would stop to consider that the same questions that are being asked us are being asked other physicians about us, we might at times be more charitable with our answers. A member of our own profession is only required to do in a certain case what in his judgment is the best thing to do at the given time; outsiders who are not intimately familiar with a given case, are not in a position to criticise any other person's judgment, yet how often do we stop to consider that phase of the question?

Medical ethics as a whole are interpreted differently in different localities, yet the point referred to is one which can have but one meaning wherever the question arises, and it is the one place if any to follow the teachings of "The Golden Rule." The Recorder is heartily in favor of the proposed addition to The Hippocratic Oath.

"YOUR OWN" DEPARTMENT.

In the section of The Recorder under the heading "Miscellaneous," we are featuring articles by our subscribers. In this department a contributor may publish his or her various views on the different theories of medicine, therapeutics, etc. All articles published are open to discussion by our various readers and The Recorder is only too glad to have the various articles published, discussed freely. Every man is free to his own opinion and belief, and we like

to hear the different opinions of our readers on the newer theories of disease, therapeutics, etc. We know that in the past many remedies that were thought—when recommended to the profession—to be "sure cures" for certain diseases, after thorough testing were found to be wanting; however, many of them were found to have a certain amount of merit. As it was in the past, so it will probably be the same with some of the remedies exploited today, so while our ideas at present may not coincide with the general ideas of the majority of the profession, they may in the long run prove to be correct. It is The Recorder's opinion that many of the newer remedies are given to the general medical profession as specifics before they have been thoroughly tried out. Again many general practitioners will use these different remedies and expect brilliant results and often they are disappointed. This disappointment is often due to the fact that the general man is not properly instructed as to the correct method of using the remedy, or in regard to the suitable cases on which it should be used.

Any discussion of any of our articles will appear under the "Miscellaneous" division of The Recorder.

Let us have your opinion, Doctor! The Recorder always has space to publish articles from its subscribers.

FRIEDMAN—COOKE.

Concerning the Friedman tuberculosis "cure," the official organ of the Wisconsin Anti-Tuberculosis Association printed the following comment in the March issue.

You recall the furore that was created in the press by the "discovery" of the north pole by Dr. Cooke. You recall how people who didn't even know the names of the scientific instruments used by explorers, were "convinced" after their own careful consideration (sic) of the evidence.

In the case of Friedman's "discovery" you have noticed that some doctors are quoted in the public prints as being satisfied from their knowledge that here, at last, is a consumption cure. In the case of Cooke, the public finally took the judgment of geographers ,explorers and mathematicians, that we had been "faked."

In the case of the Friedman "cure," the intelligent public will eventually take the judgment of the bacteriologists and competent physicians. Why not wait patiently for that verdict? If it's worth considering, it won't be premature or indigestibly half-baked.

Friedman's apparent lack of faith in the interest, intelligence and integrity of scientists, raises a suspicion in the minds of the thinking public that he himself may be lacking in those characteristics which are essential in a scientist.

We earnestly hope a cure for consumption has been found! We don't believe it has been!

ATTENTION!

Don't forget, Doctor, that the best way to advertise your favorite medical journel is to talk about it to your friends. Every day we are receiving lists of names from our different subscribers, to whom they wish us to send sample copies of The Recorder. If the articles that appear in The Recorder are along the lines that interest you, Doctor, get busy and send us a list of your friends, and we will gladly forward them a sample copy.

Keep this in mind, for it is only by the co-operation of our subscribers that we can hope to grow—and if we did not have that ambition The Recorder would be a dead one—which it is not.

ABSTRACTS

RUPTURE OF THE UTERUS.

Barton Cook Hirst, M. D., Philadelphia (Surgery, Gynecology and Obstetrics, March, 1913.)

The writer states that this communication is confined mainly to three points in connection with ruptured uterus.

First, that the accident is more frequent now than formerly. Second, the diagnosis is not as easy as the general physician might suppose. Third, the treatment is not to be dismissed by the rule of thumb—to open the abdomen in every case and to amputate the uterus. He cites a number of cases of rupture due to error in diagnosis and improper handling. He states many cases may be saved by gauze packing of the pelvis and of the uterine cavity, the uterine packing to be removed in twenty-four hours, the pelvic in four days, then fresh packing introduced. If rupture is anterior or lateral, if there is much intra-peritoneal hemorrhage, or escape of placenta or foetus into the abdominal cavity, an abdominal section is required and most likely a hysterectomy. In conclusion he cautions the general physician to cultivate the habit of making correct diagnosis, to avoid hasty manual and instrumental interference, but not delay the application of the appropriate method of treatment too long.

COPPER IN TUBERCULOSIS.

In a preliminary note H. J. Corper, Lydia DeWitt and H. Gideon Wells, Chicago (Journal A. M. A., March 22), report their experiments to test the value of copper compounds in experimental tuberculosis. Its use would seem logical on account of its general germicidal action and slight toxicity for higher mammals, and they have therefore carried on a series of experiments to test its efficiency in tuberculosis. The recent papers by Von Linden, Meissen and Strauss, which report rather sensational results, are noticed. These authors claim an especial affinity of copper for tuberculous tissues which is contrary to the experience of Corper, DeWitt and Wells in a considerable number of experiments with laboratory animals. Rabbits and guinea-pigs have been employed, the former inoculated in the eye and the latter subcutaneously with human tubercles. The copper compounds used included copper sulphate, copper acetate, copper oleate and copper salts of amino-acids. These have been administered by feeding and by intramuscular injections, and analysis of both normal and tuberculosis tissues has shown both the entrance of copper into the circulation and its deposition in the tissues, but no evidence of any affinity to tuberculous tissues. Corper, DeWitt and Wells have had no experience with the complex copper-lecithin compound of Fr. Bayer and Co., and have not been able to obtain any from the manufacturer, but they doubt whether it will have any advantages over a copper salt of any copper high fatty acid, such as the oleate. They would not deny the possibility of favorable results but have not had them experimentally and have made no clinical observations whatever.

THE THYROGENOUS ORIGIN OF BASEDOW'S DISEASE.

J. H. Jacobson, M. D., Toledo, Ohio, (Annals of Surgery, March, 1913).

The substance of this very able article is given in the author's conclusions, namely:

1. Basedow's disease can and has been produced experimentally in lower animals by the injection of thyroid pressure fluid (Klose), by implantation of the thymus gland (Bircher) and by the injection of the macerated thyroid gland (Baruch).

2. The evidence at hand indicates a close relationship between the thymus and thyroid gland.

3. That the symptoms of Basedow's disease are due to either an excess or perverted secretion of the thyroid, with the primary disturbance existing in the thymus gland.

4. Basedow's disease has been produced in man by the excessive administration of thyroid extracts and preparation of iodine.

5. That there are changes in the thyroid gland, chemically, macroscopically and microscopically, which are charactertic for Basedow's disease.

6. Typical Basedow's disease or symptoms of hyperthyroidism occurs after or in connection with other affections of the thyroid, such as simple adenomatous goiter, cancer and inflammations.

7. That there is a characteristic blood picture in Basedow's disease which disappears after the surgical removal of a sufficient amount of the diseased thyroid tissue.

SEMINAL-DUCT SKIAGRAPHY.

W. T. Belfield, Chicago (Journal A. M. A., March 15), describes his method of making skiagrams of the seminal ducts by the use of collargol injected through an incision (vasostomy) in the vas deferens just above the testicle. The strength of the collargol should not exceed from 10 to 15 per cent; the quantity injected at one sitting should in general be limited to 4 or 5 c.c., and should immediately cease if pain in groin or rectum occurs. If the vas is occluded by stricture, even 1 or 2 c.c. may cause severe pain. Regurgitation of collargol into the connective tissue around the incision follows overdistention and causes a tender induration, which usually gradually subsides without suppuration. If there is no occlusion of the duct, collargol is passed with the urine for days following the injection and the emitted semen is black. When the weaker, nonirritating solutions are given at body temperature, the distended vas and vesicle may expel their contents into the urethra and bladder and even out at the meatus. "Among the features revealed by this method are (1) a peristalsis of ampulla and vesicle into the prostatic urethra, without the phenomena of emission—a function which explains certain obscure clinical phenomena; (2) the sphincteric closure of ampulla and vesicle; (3) the not infrequent occlusion of the ejaculatory duct, converting vas and vesicle into a retention cyst." The article is illustrated.

PERINEORRHAPHY.

C. G. Child, Jr., New York (Journal A. M A.., March 22), describes and illustrates a technic of perineorrhaphy which he has not seen described, though he does not claim that it is positively new. He employs silk-worm gut and that which has been dyed, in preference to other suture material. The method is described as follows: "The vaginal sutures are passed and tied in the usual manner. In the perineum a figure-of-eight suture is used, the first bite of which catches up the levator ani muscles, and the second bite the transverse perineus muscles and skin. Care should be taken in tying these sutures not to bring them too tightly together, or they will cut deeply into the tissues and be difficult to remove. The tissues included within their grasp are to be just snugly approximated—no more. The ends are left long and all sutures are removed on the tenth day." The advantages he claims, are the high percentage of primary union, the perfect approximation and absence of dead space, fewer sutures required and the removability of the sutures, instead of leaving buried sutures with the possibility of their infection.

THE DOCTOR'S LIBRARY

"International Clinics," Vol. I., Twenty-Third Series. L. B. Lippincott Company, Philadelphia and London. Price $2.00.

If possible this new volume of "International Clinics" contains more interesting articles for the general practitioner than some in the past, among them being: "Treatment of Poliomyelitis," "Diagnosis and Treatment of Scarlet Fever," "Disease Simulation," "Intestinal Auto-intoxication," "Potts Disease," "Transplantation of Tissue," "Care of the Woman during her Thirty-nine Weeks of Gestation," and many others, equally interesting, and by the same class of able contributors that have made the International Clinic famous.

The last section of the work is devoted to the "Progress of Medicine During 1912." This department alone gives the work a value that cannot be too strongly emphasized; it gives to the general man in a nutshell, the best that has been written along medical lines during the year of 1912. The work is highly endorsed by the editors of "The Recorder."

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"Friends of the Insane" by Bayard Holmes, M. D., Chicago, Illinois. The Lancet Clinic Publishing Co., 1912.

This small book is so full of good short essays that it is impossible to review them separately. The essays are divided under three heads: "Insanity'," "Educational and Social," and "Professional and Surgical."

Under the first section, the essay, "Friends of the Insane," is the keynote of those that follow. It tends to show that by the united efforts of the friends of the insane, much can be done to better their conditions and promote investigation into the cause of insanity. To quote from one of the essays: "Our contention is that the insanities are etiologically physical ailments, and that their understanding is to be attained by the physical laboratory methods based on rational theories." For this section of the work alone, this book should be read by all medical men, for the relation of the diseases mentioned, to insanity, is taken up in a way that is not presented in any text book.

Among the essays in the following section are those on "The Soul of Medical Education," "Growing Functions of the State University," "Practical Hygiene in Medical Schools," "The Advantage of Team Work in Medical Research," "The Country Doctor and Typhoid," "The Duty of Raising the Standard of Rural Life," and many others any one of which should win it a place in every medical library.

♣ ♣ ♣

In preventive medicine we are laying emphasis at the present time on the prevention of the total disease, and on wholesale antagonism of infectious diseases where, if the physician was constantly on the alert to antagonize minor conditions which lead to gross pathological changes later on, the results would be fully as satisfactory; in fact, I am inclined to believe, they would be more satisfactory.—Editorial in Ellingswood's Therapeutist.

♣ ♣ ♣

The advertisement of W. R. Weener & Co. in this issue offers physicians good reliable investments on favorable terms. I have known Mr. Weener for years and know him to be a responsible bond dealer. Various business transactions which I have had with him have always been satisfactory. Mr. Weener is a good judge of securities and he always gives his honest opinion of any security.

Wisconsin Medical Recorder

A Monthly Journal of Medicine and Surgery, devoted to the best interests of the profession

VOL. XVI APRIL, 1913 No. 4

NUTRITION

G. G. BURDICK, M. D. and THEODORE C. F. ABEL, M. D., Chicago

Under this term we consider the various processes by which the human body takes unto itself foreign material for the purpose of renewing its own substance and providing itself with heat and energy. The objects of nutrition may be stated under four headings, as follows:

1. To renew or replace the cell-substance lost by the unavoidable wear and tear of the life processes and other work. 2. To provide new cell substance for the purpose of growth. 3. To provide a sufficient amount of heat so that the temperature of the blood may remain within constant limits. 4. To provide mechanical energy both for voluntary and involuntary work.

The various processes of the body coming under nutrition are the following. 1. Alimentation, or the mechanical preparation of food substances to make them fit for the digestive processes. 2. Digestion, or the chemical changes taking place in the food, to make it ready for absorption. 3. Absorption, or the taking of the products of digestion into the circulation, that they may be carried to such parts of the body where they are needed, and where they are taken up or assimilated. 4. Assimilation, or the final splitting up of the absorbed products and their conversion into cell-substance.

To these may be added (5) Respiration, by means of which oxygen is supplied to assist in the final splitting up of oxidation of the absorbed products; (6) Circulation, by means of which the absorbed material is carried from the digestive organs to the tissues, and the wastes from the tissues to the excretory organs. (7) Excretion, or the removal of the waste products which are unavoidable in the various chemical and mechanical process of nutrition.

When an engineer puts a ton of coal into the tender of a locomotive, he does so with the expectation that it will move the train a certain distance. There is a definite relation between the amount of fuel burned and the amount of work done. The engineer also knows that the same weight of different fuels will carry the train different distances. A ton of wood, a ton of soft coal, a ton of hard coal, all have different fuel values. There are methods of testing the different fuels, and it can be proven that the same weight of the same fuel will always yield the same amount of heat. And as the amount of work done with different fuels is directly proportionate to their heat value, it is possible to compute very accurately how much work a given fuel can do.

The principles set forth above find close application when we consider the

subject of nutrition. All work done by lifeless machines depends upon the fuel used originally. The coal burned under the boilers generates steam, and the steam drives the engine, which transmits its power to the other machinery. As the human body is nothing but a living machine, capable of doing complex work, the amount of this work done will naturally depend on the caloric value of the fuel burned to supply its power. This is accomplished by the various processes of nutrition.

But the food taken into the body has other functions to perform besides supplying power for work. In the locomotive which we used as an illustration, the fuel was burned simply to furnish motive force. If any part of the machine was broken or worn away, it would have to be renewed or repaired before the work could go on. The best locomotive ever built is bound to wear out and stop working sooner or later. But the living body utilizes its fuel not only to supply power for its work and heat units to keep the proper temperature, but also to continually repair the normal wear and tear which is unavoidable in any machine, living or dead.

To determine the relative value of foods for the work of the body, the same methods are used as when determining the value of any other fuel. We need not here go into the technique. Suffice it to say that the unit of heat, or calorie, is the amount of heat which will raise the temperature of one gramme of water one degree centigrade. This is the common or small calorie and is usually referred to when dealing with foods. The unit of work is the amount of work done in lifting a kilogramme the height of one metre against gravity. It is called a kilogrammeter. For instance, when a man weighing sixty kilogrammes walks up a stairway ten meters high, he is doing 600 kilogrammeters of work. It has been computed that an average day's work, working ten hours a day, is equivalent to about 150,000 kilogrammeters. The involuntary work of the body itself uses during the day about 75,,000 kilogrammeters for circulation, 12,000 for respiration, and something like 800,000 for heating purposes. Thus, it will be seen that over a million kilogrammeters of energy must be supplied during each 24 hours. It has also been found that one calorie of heat equals .425 kilogrammeters of work. That is the maximum, of course. No engine has yet been constructed, and the human body is no exception, that will utilize all the heat value of its fuel as work. Much escapes as smoke, by radiation, conduction or convection. In the human body many heat units are wasted in the excretions, in the expired air, by radiation from the surface, etc., in which respect the body is perfectly analogous to a lifeless engine.

It has been found that the fuel and energy values of the three great classes of foods are as follows:

One gramme of proteid yields 4100 calories, or 1,742.5 kilogrammeters.

One gramme of carbohydrate yields 4100 calories or 1,742.5 kilogrammeters.

One gramme of fat yields 9300 calories or 3,952.5 kilogrammeters.

From this it is seen that all kinds of foods, when oxidized in the human body yields heat units, and consequently are able to supply the necessary energy for work.

It has been found, however, by actual experimentation, that when an animal is fed on an abundant mixed diet, that only the latter two classes,—carbohydrates and fats—are actually oxidized during vigorous work. In other words, the excretion of protein waste does ont seem to depend upon the amount of work done, but rather on the amount eaten. On the other hand, the excretion of waste due to

carbohydrates and fats is influenced largely by vigorous muscular work. It would seem, then that the body, when given its choice, does not make use of proteids for the purpose of energy production, but depends entirely, or almost entirely, on carbohydrates and fats for this purpose.

If, however, the latter two can be withdrawn entirely, it is possible to maintain both bodily heat and supply energy for work on an exclusive protein diet, even in the absence of stored-up adipose tissue. This has been experimentally proven. But in order to do so, the necessarily excessive intake of nitrogen, and consequent large amount of nitrogenous waste to be excreted, becomes a serious handicap to the human machine.

This might be compared to burning a poor quality of fuel in an engine, which, while capable of producing sufficient heat, yet gives origin to so many clinkers and refuse, as to eventually choke up the machine .

Contrary to a common popular opinion, heat-production in the body depends not upon certain foods, but rather upon increased chemical changes in the muscular tissues; the contraction or "tone" of the muscles increasing as the demand for more heat increases. Consequently heat production in the body is simply one form of motion, and the energy for this motion or work may be supplied by any of the three classes of food. Cold weather calls for more food of some kind; not for any special kind. It is true, carbohydrates and fats are the foods leading to storage of adipose tissue, and therefore tend to facilitate the maintenance of body temperature by interposing a poor conductor between the skin and the internal heat producing organs. Thus they indirectly help to maintain the body heat, but they do not produce it any more than other foods.

It would seem, then, that proteids could well be dispensed with, as the body makes use of them for energy production only when it has to, and then at a serious cost. But a certain amount of protein food is indispensable, and for no other purpose than to repair waste of tissue.

Certain organs of the body, those particularly which do the hard work, the muscles and glands, consist chiefly of living cells, with very little lifeless intercellular material. A chemical analysis of muscle gives about the following results.

Water	75%
Solids	25%
Proteid	21%
Salts	1%
Extractives	1%
Fat, etc.	2%

Thus, four-fifths of the solids in muscle are protein in composition. These cells are constantly being worn out and must be replaced. And here is where the function of protein food comes in.

The elements of which the protein part of the cell are composed are carbon hydrogen, oxygen, nitrogen and sulphur. All of these except the nitrogen and sulphur can be and probably are supplied to some extent by carbohydrates and fats. But neither of these contain nitrogen, and this indispensable element cannot be supplied except through foods containing protein. This does not necessarily mean animal foods. Many vegetables are rich in protein, and consequently in nitrogen. It is also a fact that the amount of protein food consumed is far in excess of the nitrogenous requirements of the body. A hundred grammes of proteid, containing 16 grammes of nitrogen, is ample for the bodily needs in 24 hours, and probably much less would suffice. An individual who does not work can do with one gramme of protein per day for each kilogramme of body weight. This should be increased to two gram-

mes for ordinary work and two and one-half for hard labor.

There is an important point of difference in the behavior of the body toward proteids and its behavior toward fats and carbohydrates. All the protein eaten, whether in excess or deficiency, is disintegrated or oxidized in the body, with the consequent formation of waste products. None of it is stored up, except such as may be used to repair tissue waste. On the other hand, when carbohydrates and fats are eaten, the body only uses enough of them for its immediate needs, and stores the rest as fat or glycogen. In one case the body acts like an open fire, consuming all the fuel thrown into it, regardless of the need for heat. In the other case it acts more like a self-regulating furnace, which closes a draft as the temperature rises and burns only as much fuel as circumstances demand.

Another point of great importance is this: When fats or carbohydrates are oxidized, the waste products are chiefly carbon dioxide and water. These are at once taken up by the blood and carried to the lungs on one hand and the kidneys on the other to, be got rid of, with very little extra labor to the system. With proteids the case is different. They do not at once break into end products when oxidized, but form many intermediate products. These must be carried to the liver to be changed into urea, and then only are they ready for final excretion by the kidneys. All this chemical work is a serious task, and when we considere the poisonous nature of some of these products, any retention or over-production at once becomes a menace to general health.

That is what happens if all the proteid is digested and absorbed. If larger quantities are eaten than what can be taken care of in this manner, the excess undergoes bacterial putrefaction in the large intestine, with the formation of waste products, such as indol, skatol, and phenol, which are if anything worse than those waste products that are formed by oxidation and assimilation of proteids in the tissues.

It would appear from these various facts, that it is a very unwise procedure to say the least, to take into the body more proteid than is absolutely necessary.

Besides the three great classes of foods so far discussed, three other factors play an important part in nutrition. These are air, water and salts.

Neither proteids, carbohydrates or fats carry enough ogygen in themselves to permit of complete oxidation of their carbon. Besides, a large amount of the oxygen liberated by their decomposition unites with hydrogen, similarly set free, to form water. Consequently it is to the respired air we must look to supply the necessary oxygen for combustion of the body's fuel, just as a furnace must have a sufficient supply of air in order to burn its coal properly. It seems an over-sight on the part of nature that none of the nitrogen taken in by respiration is utilized in the body, but such is a fact. The amount of nitrogen expired exactly equals that which is taken in.

An important part is also played by water. All food stuffs contain a certain percentage of it, and there is reason to believe that some is formed by the union of oxygen and hydrogen set free during decomposition. And yet the output of water in the urine, perspiration and other secretions, together with that lost by evaporation from the lungs does not equal the intake. This is due to the fact that a tremendous amount of water is required to carry on the chemical processes of the body, many of which are synthetical in their nature. It seems very clear that most people do not drink nearly enough water, thereby handicapping the work of their bodies.

What part the inorganic salts play in nutrition is as yet doubtful . That some

of them, at least, are necessary is very probable. The supply of sodium chloride must be kept up, evidently ,or nature would not have produced a craving for this substance. Its invariable presence in all secretions is not accidental, and a certain percentage must be maintained in the blood and tissue juices for the purpose of equalizing osmotic pressure. Its function thus seems to be purely mechanical, if we except the part it plays in the manufacture of hydrochloric acid for the gastric juice. The other salts, particularly sulphates and phosphates, might be considered more properly as waste products, being the unavoidable result of the oxidation of the elements sulphur and phosphorus, which occur in protein food, as well as in the tissues. If they play any useful part in the economy, it is not known.

The latter two salts, together with urea, may well be considered analogous with the ashes produced by burning fuel in a furnace ,while its smoke, in the form of carbon dioxide, passes off by the chimney, represented in the body by the lungs. Which way we look at it, the splendid mechanical and chemical plan of the living body is in evidence everywhere, and all that is necessary to keep the machine in good order is the proper kind and amount of fuel, a good draft, and sufficient water to carry away the wastes produced.

There is no reason to doubt, and increased knowledge will soon bear out the truth of this assertion, that disease and death are due in most instances to defects of nutrition. We need not even except diseases due to bacterial infection, as the properly nourished, healthy body has singularly efficient provisions to prevent the entrance of bacteria, or, in the event of their entrance, of disposing of them. But a system weakened by a life-long struggle against poisonous waste material, the source of which is deliberately introduced into the body from childhood under the name of animal food, readily falls a prey to any infection.

ACUTE POSTERIOR URETHRITIS

NELSON F. McCLINTON, M. D.
Chicago, Ill.

Varius authors state that posterior involvement occurs in from 80 to 90% of all cases of acute urethritis. There are various factors that undoubtedly enter as a causative element. The use of alcohol, exercising, keeping of late hours, sexual exicitement, bicycle riding, etc., predisposes to this complication.

It is noticed that those cases who avoid the above and rest as much as possible escape this complication, much more than 80%.

Also treating the anterior cases as already outlined the percentage is much lowered. The most frequent time of extension to posterior urethra is at the end of the second week when the subjective symptoms are much increased. Urination is very frequent and urgent and unless desire is immediately gratified, there may be involuntary urination. Often at the end of urination a few drops of blood appear, there is tenesmus, the patient has chilly sensations and may or may not have a rise in temperature. It will be impossible to state the percentage of acute posterior urethritis cases that have the above severe symptoms, however all do not.

There is a class that may have a posterior infection three or four days after beginning of the disease, these may not have any subjective symptoms and the second glass being cloudy is

all that demonstrates that the posterior urethra is involved.

Taking up the treatment of apparently mild cases by those that appear early the following treatment is advisable:

Continue the treatment as given for Anterior Urethritis, namely the daily injection of 1½% protoargol given by the physician and the four hand injections of ¼ or ½% protoargol taken by patient himself.

With a posterior involvement every 2nd or 3rd day after giving the office injection which is to be retained five minutes and then expelled, again inject urethra with same strength solution but this time with the intent to have solution enter the posterior urethra. This can be accomplished by using more solution, slightly more pressure and having patient relax or try to urinate when the fluid usually enters the posterior urethra and bladder and can be retained until next urination. Do this every second or third day. The anterior urethra is injected first as stated above so as to get urethra in as asceptic condition as possible and lessen chance of carrying organisms back by the second injection. It is commonly advised to insert either a soft catheter, a Guyon catheter or a Keyes Ultzman syringe to carry solution into posterior urethra but in these early cases where infection is active, discharge profuse, it seems more reasonable to suppose that the passage of an instrument will do more damage than the pressure necessary to use with a syringe.

Treatment of the cases with severe symptoms as already given above and appearing about the end of the second week—if symptoms are very severe discontinue all local treatment, prescribe a saline laxative, hot sitz baths and rectal suppositories of extract Opii grs. ½ Extract Hyoscyamus grs. ½ to be used as indicated. After severe symptoms subside commence the anterior treatment as already given and add to it the following every third day: With a Guyon or Keyes Ultzman syringe inject into posterior urethra 1 cc. of a ¼ of one per cent silver nitrate and increase strength as indicated, it being hardly ever necessary to go higher than ¾% in acute cases.

Regarding indication as to strength of solution, with finer shreds and cloudy conditions of urine, increase strength, when shreds are coarse and urine as a whole is clear, use the milder solutions.

Before giving this instillation the prostate should be very gently massaged to empty the ducts as it is always affected in posterior urethritis but it must be remembered to perform same with the utmost gentleness.

In giving the deep injection of silver nitrate avoid injecting any of the solution into the anterior urethra as this strength solution will be irritating for this part of the canal.

Follow out above treatment until both glasses are clear, continue treatment say five days then if no recurrence, discontinue entirely. If no discharge appears and both glasses remain clear for a week, prescribe a glass or two of beer and if this produces no discharge patient can be considered cured.

Often there remains a moist or so-called sweating condition in the urethre that causes patient much concern. Usually this will clear up of itself within ten days, it simply being due to a relaxed condition of the mucous membrane.

For this condition a very mild astringent may be prescribed such as Hydrastis or weak solution of Zinc Sulphate.

The most common complication of acute posterior urethritiis is epididy-

mitis. If this occurs the safest plan is to discontinue all injections.

In the Febrary edition of the Journal in the paper on Acute Anterior Urethritis through a misprint the strength of solution of protoargol for hand solution namely the injection used by patient himself was given as 1¼%. This should be ¼ or ½ as 1¼ is much too strong to be used by patient or taken as frequently as three or four times a day.

MATERNITAS

By CHARLES E. PADDOCK, M. D., Chicago, Ill

(Continued from Page 88 March Recorder

The question is often asked by the woman as she begins to be around the room, "When may I put on my corset?" Not for six weeks at least and then it should be loose.

After-Pains.—Some women suffer more or less from painful contractions of the uterus following the birth of the baby. These pains rarely last longer than a few hours and are usually a good sign, indicating the firm contraction of the womb and a nearly return to its proper size and position. When the infant is put to the breast, these pains are often increased for the moment.

Diet.—It was formerly customary after the birth of the child to keep the mother upon a skim milk and water diet. This treatment is now obsolete and the patient is dieted as any one would be in bed, not taking exercise. She should be given nourishment according to her power of digestion.

There should be the usual three meals a day, and between these and at bed-time a glass of milk or gruel should be given. For the first day or two the diet should be somewhat lighter than on subsequent days; it can be selected from the following list:

Diet for First Two Days.—Milk, hot or cold, one to two quarts a day; gruel; soup; clam broth; beef tea; beef juice; cereals; soft boiled eggs; toast and eggs; cocoa or milk.

Diet for Third Day.—Milk; milk toast; poached eggs; soups thickened with rice or barley; cereal foods; wine jelly; stale bread and butter; lamb chop; stewed fruits; cup of tea or chocolate.

Diet for Fourth Day.—The same with addition of white of fowl; squab; oysters, raw or stewed; baked or mashed potatoes; ice cream and ices.

Diet for Fifth Day.—Same as above, with, perhaps, steak once a day; eggs; fresh fish; mashed potatoes.

From now until the mother gets up, a sufficient diet can be selected from the list of sample meals, a cup of chocolate or coacoa, with a wafer, may be substituted frequently. It may be necessary to withdraw some of the fluids for a few days, because of too much milk in the breasts. Oranges, lemons, strawberries, grape fruit, plums and tomatoes can be added to the diet from time to time.

Tea does not produce a flow of milk. In fact, it has a tendency to retard the flow. It should be taken sparingly, if at all, by the nursing mother.

The convalescent should refrain from such foods as may have disagreed with her before. The following should not be eaten: Fresh pork, canned beef, sausage, veal, turnips, cabbage, canned peas beans and corn, cucumbers vinegars, highly spiced dishes, French or mayonnaise dressing, gravies, spiced sauces, heavy pastries and hot breads.

Sample meals for use after fifth day. Breakfasts—

(1) Any breakfast cereal, soft egg,

tea.

(2) Orange, cereal and cream, scrambled egg, tea or cocoa.

(3) Cereal, broiled whitefish, bread and butter, tea, coffee or cocoa.

(4) Lamb chop, stewed potatoes, toast, tea, coffee or cocoa.

(5) Orange, scrambled or dropped egg, minced chicken, graham bread, coffee.

Dinners—

(1) Broiled or roast chicken, sweet potato, baked cup custard.

(2) Roast lamb, mashed potatoes, macaroni, wine jelly.

(3) Roast beef, celery, mashed potatoes, rice pudding.

(4) Simple soup, chicken, stewed potatoes, baked cup custard.

(5) Raw oysters with any of the above.

Suppers—

(1) Creamed chicken on toast, milk or cocoa.

(2) Oyster stew, bread and butter, cocoa.

(3) Minced chicken or toast, baked apples and cream, tea.

(4) Dropped eggs on tooast, graham bread and butter, cocoa or tea.

(5) Raw oysters with any of above.

The Bowels.—The bowels should be moved on the morning of the second day following labor. The nurse will have instructions what to give for the purpose. One ounce of castor oil is the usual cathartic, but if the patient seriously objects to this, she may be given a bottle of effervescent solution of citrate of magnesia. Castor oil, however, can be given in a variety of ways, so that it will not be unpleasant. Each morning afterwards a saline enema is given ,and if this is not effectual, one teaspoonful of cascara evacuant should be taken every night, or one-half teaspoonful three times a day.

Suggestions to Lay Nurse.—Frequently the mother has to depend upon some member of the family or upon an inexperienced nurse to care for her and the baby, and while this book is not intended as a guide for nurses ,still a few suggestions to this person may be made.

After the baby has come, make the mother comfortable and clean. Put on the binder and a clean pad over the vulva. Change these pads every hour or two. Fresh pads can be made from time to time and baked in the oven. Do not let them accumulate, but destroy immediately after use by burning. Several times a day put the patient under the douche pan and irrigate the external parts with the antiseptic solution prescribed b ythe physician in charge. Never use wash cloths or soiled linen to cleanse these parts. Boil the entire syringe, and keep it in a clean towel. Always, before changing the pad, wash your hands thoroughly with soap and water, clean your nails and scrub in some antiseptic solution. Always have the linen about the bed scrupulously clean.

Within two or three hours after the birth of the baby the abdominal binder is applied. It furnishes support to the relaxed abdominal tisseus and gives much comfort to the mother. The binder is worn until the mother is up and about. After this, especially in women who have had several children, or in corpulent women, a supporter, should be worn.

The breast binder is usually put on during the first twenty-four hours. It is kept loose at first, and as the breasts become filled with milk the binder is drawn a little tighter to prevent them from filling too rapidly, being useful also as a support. At the same time, a clean piece of linen or gauze is kept in place over the nipples by this binder.

On the second day give the patiient a dose of castor oil.

Wash the nipples before and after each nursing with a boric acid solution, which should be kept especially for that purpose.

The first cleansing of the baby is with lar,d, olive oil or vaseline. The end of the cord is now washed with alcohol and the whole wrapped in sterilized gauze; turning the cord toward the head of the child, it is held in this position by the binder, which should not be too tight. This dressing must be kept dry. The eyes are washed with a boric acid solution. The face, head and hands should be washed with a pure soap and warm water daily ,but the rest of the body should be only oiled until the cord has dropped off. Great care should be taken to keep soap out of the baby's eyes. Put the infant to the breast every four hours for the first two days, then every three hours during the daytime and every four hour sat night. Always awaken the child if asleep at the time for nursing. The infant's mouth should be washed before and after with a solution of borax or boric acid. Troublesome symptoms are not likely to appear if the nurse follows these directions modified to conform to the wishes of the physician in charge. Remember that regularity and cleanliness are the principal requirements in the care of both the mother and the infant.

DEVELOPMENT OF THE BABY.

The new born-baby is helpless and unconscious of its surroundings. It will open its eyes and cry; it urinates and its bowels move. Put to the breast it will nurse; placed upon the bed, it is unable to change its position. Noise does not disturb it, odors it does not detect. It cannot distinguish objects and will not wink when the finger is put close to the eye. There is probably not any distinct voluntary action; all its senses are practically dormant. The young infant sheds no tears, and though it may cry and the eyes may become moist, it is not until the age of three or four months that tears actually overflow the lids. At the age of six weeks, the baby begins to fix its eyes upon objects and at the end of two months, vision is complete.

When about three months old it makes efforts to grasp objects and at the end of six months it will amuse itself with toys. After three or four months the baby can hold up its head, but does not sit up unsupported until it is about six months old.

Infants seem to be deaf for the first twenty-four hours after birth, and some authors contend that they are deaf for several days. At the age of from two to three months a child will turn its head in the direction from which a sound comes. The voices of the nurse and parents are recognized at three and a half months.

Taste is developed usually at birth —the infant will take sweets and make wry faces at bitter substances.

The normal temperature of a baby is from 98½ to 99 degrees Fahrenheit in the rectum. The thermometer should usually be left in the rectum about three minutes. Often the baby will have a temperature of from 100 to 102 degrees, or even as hig has 103, without alarming symptoms; in such cases, however, the advice of the physician should be sought.

In the hands of an intelligent mother the clinical thermometer is a very useful instrument, but the mother who loses her self-possession and becomes excited if the baby shows an elevated temperature is not the proper person to use it. The record of the thermometer is a valuable guide to the physician when talking with the mother through the telephone.

Before inserting the thermometer in the rectum, lubricate the end with vaseline and see that it has been shaken down to register below normal.

The respirations of a child when awake are irregular. It may hold its breath for a short time and then immediately afterward breathe without any apparent effort. For the first three weeks the average number of

respirations is about forty per minute, and during the remainder of the first year the average is about thirty. From one to two years twenty-eight is the average. The respiration rate is somewhat less when the healthy child is asleep.

The pulse is influenced the same as in an adult, by crying, excitement and exercise. At birth the pulse beats range from 130 to 150 per minute. During the first month they vary from 120 to 140; from the first to the sixth month they are about 130; and from the sixth month to the twelfth month they are 120 per minute.

Usually babies are born with but little hair, although some have a very thick growth. As a rule, the first hair begins to fall out after a week or ten days and the new hair often appears, often of the same color, but lighter in shade than it will be later.

If the white, sebaceous substance which covers most babies at birth is carefully removed by the oil the scalp will remain clean and healthy. Should crusts form upon the scalp do not attempt to remove them by the use of a comb. Keeping the scalp well oiled with vaseline will aid the removal of the crusts.

While babies are usually born with little hair, there is a steady growth when the new hair appears. An absence of such a growth after several months may mean that the baby is suffering from malnutrition. To such a condition the physician's attention should be attracted.

After birth the head is usually out of shape, and is not formed as it will be later on. This is frequently a great source of anxiety to the mother, but she can be assured that in a few days a deformity will have been corrected by a natural process. This seeming deformity is due to a wise provision of nature which allows the bones to overlap during birth, diminishing for the time being the size of the head, and thus lessening the danger of birth.

The "soft spot" and sutures can be felt easily on a baby's head. As stated, these sutures and the soft spot permit of the bones overlapping during labor. The sutures close during the early months and become solid. The "soft spot" gradually diminishes in size, and when the baby is fifteen months old it is usually entirely closed.

The average baby weighs seven and a half pounds at birth. It is very unusual to see one weighing as much as the traditional ten pounds. The great weight of a baby is nothing to boast of. The heavy new-born baby is not likely to gain proportionately in weight nor be healthier than the seven pound baby.

The baby should be weighed by the physician or nurse as soon as possible after birth, and regularly afterwards each week at a certain hour, either just before or after a feeding. Sunday morning may be the time chosen, and as the father is at home then, let the weighing be his duty. For the first ten days weigh the baby daily.

The weight and date are to be written preferably in a record book which can be seen as necessary by the physician. If the infant is weighed with a certain amount of clothing, a duplicate amount of clothes can be weighed and deducted from the reading of the scales.

The baby loses weight during the first few days, regains it by the tenth day, and should gain about one ounce a day during the last three weeks of the first month. In the second month it gains about one ounce a day, and in the third and fourth about five ounces a week. It should have doubled its weight at five months. For the next two months it ought to gain about two-thirds of an ounce a day, and from seven to twelve months about a pound a month.

If the infant loses in weight or fails

to gain there is something wrong, and the physician must be notified. While the child may apparently feel well, it is sometimes impossible without the scales to say whether it is doing well or not. Any loss may be due to a deficiency in the quantity or to the poor quantity of the mother's milk, evils which can often be corrected in her supply if taken in time. Perhaps, however, they may have to be offset by the addition of a little artificial food; this subject is considered in the chapter on feeding the baby.

The average height of infants at birth is twenty and one-half inches. During the first year the baby grows in length a little more than eight inches. During the second year the increase in height is only three and one-half inches. From this time on during childhood the gain is from two to three inches a year.

From an immense number of recorded observations the following statistical averages have been compiled:

Weight at birth 7½ pounds.

Height at birth 20½ inches.

Chest circumference at birth 13½ inches.

Head circumference at birth 13½ inches.

Weight at one year 20 pounds.

Height at one year 29 inches.

Chest circumference at 1 year 18 inches.

The teeth are cut in groups with an interval between; at one year of age a baby should have six teeth, and may have twelve. All the teeth should be cut by the time the child is two or two and a half years old. The teeth may come through almost unnoticed; on the other hand, they often cause serious disturbances ,and the child becomes nervous from sleepless nights and indigestion. Occasionally apparently healthy babies have a rise of temperature and severe gastric and intestinal disturbance with the cutting of each tooth. Heredity may play an important role in dentition. In some families the teeth come with difficulty, and in others they give no trouble; some families show regular teeth, others irregular ones. Rarely does the breast fed baby have as much trouble in cutting the teeth as the one reared on the bottle.

The habit of rubbing the gums when a child is cutting a tooth is not justifiable under all conditions. If, however, the tooth is just about ready to come through there can be no harm in resorting to this method of hastening it; remember, however, that the finger first be thoroughly cleaned. Then if the finger be dipped in ice water and rubbed over the swollen gum, it gives the baby instant relief . Rubbing the gum with a small piece of ice wrapped in a clean piece of old linen will often relieve irritation. The gums are not lanced as formerly; this course is now considered advisable only in extreme cases. There are twenty teeth in the first set, and they normally appear in the following order:

1. Two lower central incisors, 5 to9 months.
2. Four upper incisors, 8 to 12 months.
3. Two lower lateral incisors, 12 to 18 months.
4. Four front double teeth, 12 to 18 months.
5. Four canine—Two lower or stomach teeth, 18 to 24 months. Two upper or eye teeth, 18 to 24 months.
6. Four second molars, 28 to 34 months.

(To be Continued.)

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Fortunately it is now a great and growing function of the medical profession to search out the laws about epidemics, and those outside enemies of man, and to teach to you, the public —dull, stupid pupils you are, too, as a rule—the ways of nature, that you may walk therein and prosepr.—Osler.

WHAT WILL THE HARVEST BE?

By F. F. CASSEDAY, Ph. B., M. D.
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Is the human race traveling in cycles? Is the rise, development and fall of races and nations inevitable? Is our civilization and great wealth intended for our good, or for our destruction? If present conditions continue, with continuing ability of the human mind to create wealth producing agencies what will be the mental, moral and physical harvest of the human race? These questions are being asked by the philosopher, the scientist, the moralist, the pathologist ,and the physiologist.

The shell of our civilization may present a good front, the amenities of life may be observed with apparently the most studious exactness, the race may revel in art and be impressed by the good, true, and beautiful in nature and in humanity, individuals of the race may be fair to look upon, and yet such a people may have inherent weaknesses which are undermining their moral tone, destroying their mental poise, and reducing their physical resistance to the point where the individuals are unfit, and are unable for these reasons to beget descendants. Where only a small percentage of the race are thus weakened the day of reckoning is postponed, but if the fatal virus continues to work the passing of that race can be predicted.

The goal of the race seems to be material wealth and the refinements and luxuries, which wealth will procure. The Greek and Roman civilizations as well as those which preceded them were founded upon the acquisition of material wealth, which developed intellectual growth, artistic sense and facility to give it expression in architecture, paintisg and sculpture. Individual rulers as well as certain Roman pontiffs encouraged and made possible the production of works of arts and engineering; and wars of conquest further enriched the Roman Empire. This great wealth also produced the voluptuary and the glutton, gratification of the animal appetite and passions instilled its deadly virus and the Empire declined to its fall.

Humanity is much alike in all periods of history. The primitive and early races took what they wanted by brute force from their weaker brothers. They took it in cold blood, and robbery, rapine and slaughter determined the survival of the fittest in numbers and physical prowress. Men in this period of the world were essentially animals, and were compelled to fight to maintain their individual positions, and their collective organizations, or bands.

Later on in medieval times feudalism came into existence and a thin veneer was spread over the race. The population became localized and built centers of activity, more attention was paid to agriculture and animal husbandry, and love of the chase gradually declined. Up to this time the outdoor life and purely physical existence of the race produced fairly good types of the individual in spite of their gluttonous habits, of eating and drinking and worship at the shrine of Venus. Soon came the desire for more and better clothing and houses, purple and fine linen, and as all luxuries were created the desire for them grew apace.

With luxuriouse habits came mental and physical indolence, costly wines and drugs to spur the waning powers, sexual frauds to feed the passionate mind in the weakened body, and the degradation of a degenerate Rome was complete.

In modern times there are numerous agencies which are weakening and enfeebling the race. Certain schools of philosophy would have us believe that the mental, moral and physical nature of man are separate entities and that a

giant in intellect may be a moral leper and a physical weakling without impairing the value of his influence and work. Not so. Moral sense is as essential to man's existence as mental poise and physical integrity. All are essential to save the race from degeneration and destruction.

Some of the destructive agenices are:

Intemperance in food and drink.

Alcoholism, drug habits and tobacco.

Excessive sexual congress and sexual frauds.

Excessive toil and poverty.

Perverted moral sense, due to disease, either primary or inherited.

Syphilis.

Modern city life.

Noise and competition.

The great increase of wealth and its wider distribution among a greater number of individuals has raised the level of existence, given humanity better food, better houses, better clothing, provided more relaxation from continuous labor, and stimulated the mind to increased activity. Wealth has its compensations, but the higher the stakes the more it costs to play the game. The toll collected in flesh and blood, in depraved appetites, in shattered nervous systems, in insanity, in suicide, in depravity, and propagation of the unfit, are byproducts which must be considered in summing up the effects,without in any way detracting from the inestimable benefits of wealth to the race. So at the outset of this discussion we are confronted with the proposition that whether wealth is a necessary evil, or the greatest boon ever given to mankind, it has brought in its train many evils which menace the integrity and existence of the race. History shows that as mankind secures increased luxury, comfort, and the ability to gratify appetites and desires then that race or people began to decline. Many forms of religion, systems of philosophy, systems of ethics, asceticism, education, athletic training; and other remedies have checked this tendency but have never eradicated or stopped it.

Let us consider first the effects of intemperance in food and drink. Drink in this connection refers to fluids used as food such as tea, coffee and cocoa, and not distilled or malt liquors.

Intemperate feeding consists in taking food in excessive quantities, at regular or irregular intervals, with increased quantities of condiments, and tea, coffee or cocoa. With meat dishes as the piece de resistance the big feeders stimulate the appetite by condiments, and liquors of various kinds. This sort of diet alone weakens the resistance, and makes the individual more susceptible to disease. With the average business and professional man and the women of their entourage eating and drinking at all hours of the day and night upon every social occasion is the summum bonum. This sort of thing is not confined to the wealthy class, or the near wealthy, but permeates all classes of society, who have the price. Even the sane business and professional people habitually overeat. Watch the average man at his noonday luncheon. He eats enough for a laboring man, and repeats the operation at his six o'clock dinner. The result is autointoxication from overeating combined with imperfect elimination. Any observant physician who watches the faces of passers-by can see the unmistakable marks of autointoxication in hundreds of business men.

Tea, coffee and cocoa are all pure stimulants. Many cases of coffee and tea intoxication are on record and while the effects of tea, coffee and cocoa are less stimulating than alcoholic liquors, yet their action is stimulant and the average person usually desires all such drinks somewhat stronger as the years pass. The prevalent method of boiling tea and coffee in vogue among the masses and especially the lower classes

makes an infusion and a drug of both of these useful articles of food. Thein and caffein are both practically as soluble as sugar, and boiling water poured upon pulverized coffee or any tea will immediately extract these principles in small quantity and in their least harmful state.

Alcohol and drug habits are the most pernicious causes, syphilis alone excepted, of degradation and depravity in the human race. Horace, the latin poet, in many of his poems and odes continually talks of the glorious juice of the grape, and writes of the joys of the table and the wine cup until one wonders if the Romans really lived only to eat and drink. Ferrero the modern Roman historian advances the idea that Horace was really only a winegrower's tout. When the culture of the grape became general in Italy the people had to be educated to drink wine, so Ferrero considers that Horace sold his talents to advertise the wine as a national drink. This finds its counterpart in many parts of modern Eurpoe today, where wine is practically forced upon the public in all eating houses, and the Champagne touts, many of them sons of noble house whose fortunes have decayed, who visit the great watering places, the largest hotels and restaurants, patronized by a wealthy and exclusive class, and order with great ostentation the particular brand of Champagne manufactured by their employers. It is done with great diplomacy, and circumspection, and therein lies its real advertising value.

The number and variety of alcoholic concoctions which are made to tempt the palate of man are legion. They range from alcohol pure or diluted to the mixtures known as liquers. Absinthe, the green liquer made by the Benedictine Monks was first dispensed by the French Government to the troops in Africa as a supposedly valuable and temporary stimulant to enable the soldiers to live and campaign in that climate. That was a deadly error and today France is suffering from the national vice of absinthe drinking, and the government is doing all in its power to stop its use. It is a mixture of drugs and not a liquor at all in the proper sense. Its effects are more destructive than cocaine, if such a thing is possible. Drug habits such as opium, cocaine, chloral, chloroform, are greatly on the increase, and the rapidly increasing use of the cigarette is increasing the number of alcoholic and drug habitues. Whether the cigarette is doped or drugged is a mooted point, and probably one which cannot be demonstrated owing to the fear of reprisals from the chemist who would have the temerity to expose such a practice if he knew of its existence. But be that as it may it is the universal custom among tobacco dealers to drug and dope tobacco in cigars. In no other way can uniformity in taste be secured from year to year in tobacco from various sections and raised under widely different conditions of climate and weather. For instance a dealer goes to Tampa, Florida, and visits the vast warehouses where millions of cigars and leaf tobacco by the ton are stored. The manufacturer will make cigars to any taste, and label them with any name desired. There is one certain kind of tobacco grown in a certain section of Cuba west of Havana which is very highly priced and is made into extremely high priced cigars which are sold under certain trade names, but the bulk of cigars are put out to the trade as indicated above.

Cigarette smoking especially in the young is destructive of physical strength and benumbs the moral sense, as well as creating an appetite for drink. The effects of alcohol both upon the individual and upon his offspring to the third and fourth generation are too well known to the medical profession to need rehearsal in this paper. The leading men in the United States

and Europe who study or treat alcoholics and drug habitues, and have made a study of the subject are unanimous in the assertion that the number of such habitues is increasing at an alarming rate, that drug addiction is increasing among physicians and professional people generally, and the further fact is noted that secret vices and sexual frauds are also increasing at an alarming rate in all stratas of society. Alcoholism and drug addiction, especially the latter, are a distinct menace to the well being of the race as sexual activity is much stimulated by alcohol and drugs like opium, cocaine, and absinthe.

A European writer on physiology noted the fact, in connection with the universal custom of wine drikning at wedding feasts, that the first born child was notably weaker and less robust than the children of later conceptions. This was not merely individual cases, but was so generally true that an educational campaign was urged to stop the practice. Degeneracy, insanity, nervous diseases of various kinds, moral perverts, and victims of sexual vice are a few of the products of alcoholism. These show for several generations. In addition to these effects of alcohol upon the immediate and remote progeny of alcoholics there is the constant physical weakness and lack of resistance in such progeny. This weakening effect is still more marked in drug habitues with a greater tendency to degeneracy and the practice of secret sexual vices and sexual frauds. Neither education or moral teaching exercise a deterrent effect upon drug habitues and their progeny for we constantly observe individuals with remarkable mental gifts, and teachers of morality and religion who are victims of and practice the most detestible and disgusting methods of gratifying the sexual appetite.

These degenerate human products cannot be classified by educational, moral, or physical standards for we find them in all stratas of society and in all walks of life, among the educated and among the ignorant, among the poor and among the rich, among the foreign and among the native born population.

The exposure of a group of degenerates, who have practiced the most degrading vices, in one of our coast cities not long ago affords ample evidence of the proposition cited above. The individuals run the gamut of the so-called social scale, and neither education, social standing, moral training, or good environment had the slightest deterrent effect. These degenerates are the progeny of ancestors who transmitted a handicap to them which they could not overcome. On the contrary it overwhelmed them. They have a moral warp, lack poise, are perverts and fail to grasp the true meaning of life and their relation thereto. Many of them show no sense of shame whatever, and are really insane. This city with its groups of degenerates is not peculiar at all. Every city in the country and the world will show even greater depravity and degradation. It is kept under cover and hidden from public view as much as possible.

Degenerates who practice sexual frauds are the most dangerous criminals with which society has to deal. They are absolutely cruel and merciless and commit murder in cold blood, to gratify their passion. Hundreds of murders are committed every year in the United States by degenerates, who are never found or convictd. Sterilization and amputation with imprisonment is the proper method of dealing with degenerates when proof of vicious practices is secured.

Vicious degenerates are a far greater menace to society than the majority of habitual criminals who have not been guilty of capital offenses.

Excessive toil and poverty weaken

the individual and handicap their progeny by reducing resistance and producing fruitful soil for disease germs of all kinds. Excessive toil with proper food and habitations improve conditions somewhat, but toil and poverty exacts an enormous toll in human life and human efficiency, in institutions for the sick, infirm, insane, in the machinery of justice, prisons and reformatories, and the continual public expense of dependents, which the vicious, the poor, the infirm bring into the world and who in turn continue to bring forth their kind. It is a vicious circle and an endless chain of degradation, debauchery, and crime. Our philanthropists, sociologists, and governing classes have always temporized with these pressing problems. Meanwhile the virus is working at the vitals of our racial life, and unless some sane movement is inaugurated to remove the causes of degeneracy our civilization is imperiled.

The vicious heritage in the third and succeeding generations from alcoholic drug habitue, or degenerate ancestors usually develops in the form of nervous diseases, pervertel moral sense, or insanity, or deep seated disease like cancer or tuberculosis.

Syphilis and gonorrhoea touch the race more closely than any other forms of disease, the first because of its persistency in various forms and through various manifestations through several generations, and both syphilis and gonorrhoea because of their destructive action upon the innocent as well as the guilty.

Finally modern life with its haste and bustle, its noise and its fierce and unrelenting competition are playing havoc with the brains, the stomachs, the kidneys, and the lungs of humanity.

We work at high pressure, we eat in a hurry, we take our pleasures on the run, we turn night into day, we take our business to bed, we sleep when there is nothing else to do, and when the thin strand of life snaps the survivors wonder why it happened, but the warning is unheeded.

Will we continue to temporize? Is there a remedy? Is it possible under our present method of government and selection of our officials to remove any of these causes of weakness? It may be but I have serious doubts of it. Water will not rise above its source. With the entire fabric of our race inoculated with petty and grand vices like the liquor habit, cigarette and tobacco habit, and others more destructive we cannot expect reforms or even the semblance of reform to be initiated or carried forward by men who have their own pet vices and will not give them up. Then too there is that all powerful throng who profit financially by the sale of liquor, the promotion of vice, and the sale of drugs like opium, cocaine, etc.

The only way left open publicity of the methods of vice promoters, and their conviction and imprisonment, the conviction and imprisonment of illegal sellers of cocaine and opium, education of parents on the effects of alcohol and drugs like opium and cocaine, and sex education for both parents and children.

The present systems of mental, religious, and physical training are elaborated and practiced in great detail, but the moral training of the child is lax, insufficient, haphazard, and frequently entirely lacking. Moral training left to the mental teacher fails—because the mental teacher is overworked and underpaid, and has neither time nor opportunity to teach morals and clean living except in a very superficial and desultory way. To combine moral solely with religious training does not meet the difficulty, because the promise of a life hereafter does not hold a strong appeal to the young active child. The child is an animal full of the joy of be-

ing alive and the teaching of decent living must appeal to his plan of life in a physical sense. Tell the child the full story for in complete knowledge there is safety. Show the harmful effects of wrong living upon his physical being, upon his associates, and hammer into the child's brains that it pays to be decent and clean, and temperate, fair and honest in thinking and acting, that it pays in health, strength, money, friends, self respect and mental and physical power, and finally impress upon the child that the clean, decent people are right from top to bottom, and if the child expects to be one of that sort he must be decent and clean, and honest first of all with himself. If he cheats himself he is out of the game of life. He places a handicap on himself for all time, which he cannot overcome. That sort of training creates moral resistance, and without moral resistance man is a flabby, worthless thing.

OPHTHALMOLOGY and OTO-LARYNGOLOGY

Conducted by
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MOUTH BREATHING AFTER ADENECTOMY.

No matter how thoroughly an adenectomy is performed often the patient continues to breath through the mouth. This frequently causes the parents of the child to be dissatisfied. This is where the unscrupulous competitor often attempts to injure the operator by saying the adenoids were not all removed. Most of the troubles the medical profession contends with are due to unwarranted criticisms of medical practitioners by their confrers. Our experience has been that where mouth breathing persists after an adenectomy the internal administration of iodine in some form aids very much in securing a satisfactory result. The following editorial from the American Journal of Surgery presents some good ideas on this subject:

Th failure, in many cases, to relieve mouth-breathing in children by the removal of the offending adenoids is as conspicuous as it is disappointing. Various more or less satisfactory theories have been advanced to explain this failure to effect nasal respiration by the removal of the adenoid obstruction. One of these, more pleasing than practical, is the so-called habit of mouth-breathing—which puts the whole blame on the small patiient and leaves the cure to its parents. A more acceptable explanation is that in many cases the operation is delayed until the bony palatial arch is high and narrow and the nares are correspondingly small—the slow, expensive and more or less incomplete relief of which is turned over to the orthodontist.

An interesting and sensible consideration of this troublesome question is that of Irving Sobotky in the Boston Medical and Surgical Journal, February 13, 1913. He urges a careful study of the nose itself in all adenoid cases, and a consideration of the obstructions that may also be found therein. He seems inclined to agree with those who regard inferior turbinate hypertrophy, spur and deviation of the septum, in these cases, as secondary to, rather than provacative of, adenoid growths.

Sobotsky indicates the importance of distinguishing true from syphilitic and vasomotor hypertrophy of the inferior turbinate. In the first-named

condition he advises removal of part of the turbinate at the same sitting as, and, for obvious technical reasons, just before the adenoidectomy. "Using the turbinate scissors and simply cutting a slice of the thickened mucous membrane of the inferior turbinate along the lower and posterior portion, parallel to the long axis of the bone, and being extremely careful not to cut the bone itself, will not cause atrophic changes. The healing will leave a linear surface scar and the cicatricial contraction will widen the nasal cavity enough for all breathing purposes."

He adds, however, that this treatment should not be undertaken during the age of puberty, at which time the mucous membrane is in a stage of turgescence. Electrolysis, as a means of reducing the turbinate, is effectual, but Sobotky finds it too tedious for children. Submucous resection of a deviated septum is not to be performed in patients younger than sixteen.

RESULTS OF TONSILLOTOMY. AND TONSILLECTOMY.

Whale gives the disadvantages of both operations in the London Lancet as follows:

The disadvantages of tonsillotomy are: 1. The initiation of an infection, whether manifesting itself as tonsillitis, lymphadenitis, or both. Such sequelae are more likely if a very free and deep removal has been performed than if only a moderate amount of the tonsil has been removed. 2. Recurrence of the trouble for which the operation was performed, except in the case of voice troubles, when recurrence is no more probable than after tonsillectomy.

The disadvantages of tonsillectomy are: :1. A risk of serious or even dangerous hemorrhage at operation. 2. A risk of harmful deformity supervening later; the deformities most likely to cause harm are adhesion of the posterior faucial pillar to the posterior pharyngeal wall, and overgrowth of the plica triangularis. 3. A risk of voice troubles supervening later, even without any causative deformity. To any patient who requires operation for some other reason, who has never had any voice trouble, and whose livelihood or occupation depends on the use of the voice, tonsillectomy should be urged with caution. Thus it would appear that tonsillectomy is the more dangerous operation. But with the single exception of voice troubles, it is more likely permanently to cure the complaint for which advice is sought; notably so in the case of tonsillitis or lymphadenitis; moreover these two infections are never initiated by tonsillectomy. It is important to eradicate the lower pole.

PSYCHOLOGY OF MOTION PICTURES.

The large attendance at moving picture exhibitions in every city makes their consideration of interest to the medical man in more ways than one. The Journal, A. M. A. abstracts the following on the subject:

Delfino has known a number of instances of fatigue of the eyes going on to actual conjunctivitis in a number of persons after moving picture entertainments, but these troubles have always passed away under simple rest of the eyes. The fatigue of the retina is caused by the flickering from the closing and opening of the shutter. The more rapidly this is done the steadier the moving picture, and the less strain on the eyes . The location of the spectator in respect to the picture is also important from this point of view. He also cites some cases of nervous disturbances following entertainments of this kind, alcoholics and neurasthenics being liable to have hallucinations develop afterward. Another feature of

these moving pictures is the way in which illusions may be generated. Professor Ponzo of Turin states that he actually felt the smell of new-mown hay in his nostrils at the sight of a hay-wagon in the pictures, and smelt the ocean air when looking at a ship making its way in mid-ocean. He also felt a brief sensation of dampness and chill when watching the pictures of a tropical rain. He and his pupils made a number of studies in this line of the association between the sense of vision and the generation of illusions. For this moving picture entertainments offer a special opportunity.

OBSTETRICAL NOTES

By W. T. MARRS, M. D., Peoria Heights, Ill.

Editor Recorder: This is not to be much of an article from a scientific point of view and as a literary discussion it may present points of uncouthness. With the aid of my trusty, and somewhat rusty, Remington I will hope to breathe into a few paragraphs that human touch which may awaken responsive chords and revive memories of past experiences in the yesteryears. Old men "reminisce" and young men dream; the writer is neither young nor old and my remarks will perhaps in some measure reflect the accoucheur's art as exemplified in the country and smaller towns. For a number of years I did a country practice and am acquainted with all the hardships and heartaches incident to rural obstetrics. I am not denying that every station wherever we may labor is not without its pleasant and satisfying compensations. But the long hours of waiting in isolated and often unkempt farm houses, with nothing about you to read, no suitable companions with whom to while away the dreary hours ,and often no food that is fit to eat, although you are so famished that you could devour a section of the proverbial "dead dog."

On one occasion I rode one frosty night a distance of several miles to assist in ushering into the world a mite of humanity who would doubtless grow up to be as useless as his progenitors to be presently mentioned. The house was a one room affair and unspeakably dirty and lacking in the commonest comforts and necessities. It sheltered one family and a portion of another. Queer but true the ne'er-dowells always like to bunch under one roof as much as possible. A coffee pot containing a vile fluid passing as coffee sat on the heating stove and steamed and stewed and stewed. I think it must have come up to old Dr. Louis Bauer's description of what constitutes good coffee. He used to say that g. c. was "as black as the devil, as bitter as hell and as sweet as love." A bucket of turnips sat behind the stove. As there was a lull in business, I moored myself in the most comfortable chair—none too comfortable at that—and dozed and dreamed anethemas against my alma mater for ever licensing me to go out and get up against such menial and thankless service. Presently an old crone of a woman, the master of ceremonies on this occasion, said to me: "Wake up, Doc, and eat something and maybe you will feel better. The coffee is done and you might peal you a turnip." Bah!

But one has to overcome a finicky, rebellious stomach if he does a rural practice in some parts of these United States. On one occasion I was anchored to a stubborn case for a length of time that seemed ages to me. Scene, one room used as parlor, living room, kitchen, dining room and accouchement chamber. Dramatis personnae, the usual thing, including an old grandmother and myself. I was compelled to take a couple of meals in this

home. When the preparation of a meal was first mentioned, I wondered where the food was coming from. Nothing that looked liike grub (apologies to T. R.) was in evidence. But the old lady produced some flour from apparently out of nowhere and with the aid of some water and soda (the latter of course used unsparingly) biscuits were in due course of time produced. I leave the reader to judge of the quality of said biscuits. I lay some claim to being a man of culture and I am too polite to make any derogatory remarks about the food where I am an uninvited or a forced guest. A little bacon was scared up and a jug of sorghum was produced. Where do you suppose that jug was kept in hiding? Under my patient's bed! I was requested repeatedly to try some more of "those molasses."

While rural practice is not all "skittles and beer" (whatever that is), yet the majority of country homes I have found to be more unkempt and uninviting than practice in towns and cities. In the latter we have a chance to dodge in and out and are not compelled to "stick around" so closely. It is a rather pathetic reflection to note that so much obstetrical work must be done among the very poor where there is no paucity of children and where new additions to the family are not desired or sadly needed. It is unromantic and it sounds like knocking to say it ,but it brings sadness to my heart to see little poverty-stricken families keep on adding to their numbers.

To illustrate this point: I attended a woman in confinement one day in a home where three young children were already on the ground demanding a mother's love and care. Soon after this the fourth arrival had been cared for and the mother's toilet completed, I observed big globes of tears welling up in her eyes and soon her pent-up emotions were giving themselves full expression. Naively she was having a "spell." The women attendants could not "understand," although the sex are supposed to be endowed with a sixth sense capable of peering into another woman's mind and heart. One lady thought this new mother ought to be supremely happy with this precious mite of humanity just dropped down into her arms from heaven! Said lady had no children of her own. So much in life depends. Lots of people believe in big families, but they want other folks to have 'em.

This new mother loved children and this new babe was here to be loved and cared for. But in a way it was an intruder and must share the love and shoes and milk of those already here. There was hardly enough of these necessities to reach all the way around. It worried the poor soul to contemplate that every new baby still divided the other children's chances for a correct bringing up and an education. Furthermore every new baby coming thus in rapid succession helped to dissipate her waning health and render her less capable of doing for them. Every woman and every man with a lick of sense knows that overdoing this maternity business is not conducive to health but is a constant sap upon the very life blood. That was why a thousand emotions tugged at the very heartstrings of this sensitive and ambitious mother. Such cases are all too common in the doctor's daily experience. But what can he do about it? Nothing, unless it be to preach the gospel of sterilization of incompetent and unfit men.

These are a few of the painful aspects of the practice of obstetrics. There is another and more roseate side of the matter. Fortunately babies are needed and even desired in a goodly number of the homes where we minister. Therein lies our real compensation —the belief that we have cared for the

mother and infant at this most critical period in a way that will in a measure contribute to the sum of human happiness. When we have put a parturient woman and her babe on the way to health and happiness we should feel, if we are true to our chosen work, that our efforts are not a case of "love's labor lost." We as physicians have a splendid opportunity to work for a purer and nobler motherhood and childhood and should unceasingly strive in the great uplift for humanity along this line.

OLD-FASHIONED REMEDIES.

By W. T. Marrs, M. D.

This is a day of new and nice and exact therapeutic agencies, but if I was limited to three or four drugs in the practice of medicine I would choose calomel, Dover powder, castor oil and Epsom salts.

Calomel affects every cell that secretes a fluid . The dose is from 1-100 grain to 10 grains. Less than ¼ grain doses I count as piffling . All of us give as small as 1-10 grain doses to infants. But even very young children tolerate calomel in much larger doses than are usually given. Their secretions are mobile and copious as compared with adults and ptyalism is almost an unknown quantity. It may be given with soda or chalk or almost equally well without admixture. It is really surprising ,until we have tried it and know, how many ailments in both children are responsive to mild mercury, usually followed with an auxiliary cathartic.

Castor oil is still as valuable for many troubles as the days when the pyramids were not so weather-beaten. Headaches, bellyaches, indigestion and rheumatism all may improve rapidly as soon as enough oil is imbibed to soak up scybila and inspissated feces that have been lodged in the angles of the small bowels for goodness knows how long.

Salts! It draws almost every spot in the human body that is subject to congestion and hypermia. Calomel and salts often breaks up that "threatened meningitis" as well as exerting a very toward effect upon other remote and unpleasant symptoms. Some old philosopher who probably suffered from neurasthenia said: "Nothing doeth the mind good like a dose of salts."

Dover powder is a safe and sane anodyne in almost all painful conditions . We have no better all-around remedy for cough.

MISTAKEN DIAGNOSIS.

1. Never make a diagnosis of uremia in a patient seen for the first tine in an acute illness characterized by coma or convulsions. Such diagnoses rarely turn out right.

2. Never make a diagnosis of ptomain poisoning without definite chemical evidence . General peritonitis or a tabetic crisis is usually the correct diagnosis.

3. Make no diagnosis of hysteria, neurasthenia or psychoneurosis in a patients whose symptoms resist quinin the forty-fifth year. The actual diagnosis is likely to be arteriosclerosis, hyperthryoidism, dementia paralytica, or pernicious anemia.

4. Diagnosis of tertian malaria in patients whose symptoms resist quinin more than three days are almost invariably wrong.

5. Bronchial asthma beginning after 40 usually spells heart or kidney disease.

6. Epilepsy beginning after 40 usually means dementia paralytica or cerebral arteriosclerosis.—Cabot.

MISCELLANEOUS

A MEDICAL CONTRIBUTION WORTHY OF YOUR MOST HEARTY ACCEPTANCE.

By T. F. Johnson, M D.., Perry, Iowa.

Mme. Tetrazzini's complain that no decent food could be found in Chicago, I make a more startling accusition, I assert that much of the substances, and many scores of articles used as a drug, remedy or a medicine is far from being decent, respectable, efficient, or sensible. Like the canary's rivial, I would like to institute a home and foreign mission, and assume charge in changing for a perfected system of clean medicines.

Yes I have so earnestly contended for clean therapeutics, that some kind anoymous writer, located in Portland, Oregon, has honored me with the title of the "American Clean Medicine Missionary." I appreciate the non de plume. However, I wish the transition from the old to the new could be effected in the shortest possible time; within the next year, usually this is an exceedinly slow process. There is no requirement that the change from unclean substances, to that of absolutely positively clean articles, be any more than expeditious, as cheerfully accepted as that from the unwise, to that of profound wisdom.

I regret to say, in fact we may here say, there is no Christiian fast nor festival, procession or sacrament, custom nor example, that does not come from previous paganisms. Thus may it be said of medicine, from the earliest dawn up to the present moment; history and tradition from the most remote periods, medicine has been regarded with the highest veneration as being the most mysterious, in its actions and its virtues, and producing marvelous cures. What is to prevent us from continuing in this foolish belief.

Answer! Civilization, intelligence, research, observation, discrimination, investiigation, examination and careful comparison; those are the mighty factors that are to solve the problem, and bring order out of ignorant chaotic contamination. Although the 20th century has not given rise to any great discovery, or any wonderful step in advance toward giving medicine the needed progress, yet, you may record one observation that will outrival any discovery ever declared in favor of medicine, and it is original, no translation from Greek, Roman, German or French. It is simply pure American method of careful selection, careful, deliberate discrimination with marked high systematized classification between clean and unclean substances.

So-called science has never furnished to medical history an example where and assurance of being author of the rank and file of the living members of the medical profession. I do not fear their criticism, scoffs or scorns; for there is no other alternative left them I assure you. I assert with all modesty and assurance of being author of the best highest opinion and conception of medicine that the world has ever known or offered and in the shortest sentence, and the equal with as deep a meaning to the coming generations as the shortest verse in the Bible, Jesus wept! My message to you is summed up in two words, clean therapeutics. Wonderful indeed that this suggestion, this request, this command did not go forth long ere the commencement of the 20th century.

The day and the period of miracles have long since faded and given way for intelligence the superior of mystery. Some Dr. Johnston has said, our patients want results; they do not care so much how they get well or what their disease, all they are interested in is their recovery. That asser-

tion is as false as it it is criminal; no one but a misfit degenerate ingrate could utter such a sentence. The common people will ask this question in the near future. Doctor what remedy, or medicine, are you giving me? And recollect you will have to answer in plain English, and you will have to guarantee, with a surety, that it is a clean drug, remedy, or a medicine.

It is seldom that 150,000 physicians fail to know what they are talking about. It is evident that you have the opportunity every day of hearing from those who do not. For over 900,000 generations the medical profession has been twittering about a medical science, and we have neither a system or a science, but we have the commodity the conception, the idea, with which to weave the fabric, that will furnish an institution, that all future generations will be grateful; and it will be worthy of a new name, that of universal medicine, clean therapeutics. Yes, and when I say clean substance, I exclude all forms of filthy nastiness; such as belonging to the animal kingdom, all serums, vaccines, bacterins, phylacogens, etc.

If physicians think they must use such vile conceptions, please do so not under the title of a remedy, or a medicine, but, by the unholy name of an agent, a product, foisted upon the duped portion of the members of a degenerate minority. I ask is there no way to relieve pain, none other method of curing your patients, than introducing by hypodermic injection into the circulation, those disgraceful products?

Park Davis & Co. say we do not know the real action of phylacogen. And were they honest they would make the same confession about serums, vaccines, and bacterines. They wind up with an infamous lie, by saying that all your patients want is relief from pain and illness; they want to live, and live free from pain, and they do not care how the physician brings about this result. This is their ethical compliments to the public, the common people, and likewise would dupe the credulous portion of the medical profession, with such duplicity. Laboratory lore by their best and most learned experts is of very unquestionable service to the true thinking, observing, strictly conscientious physician.

I have argued that the physician does not dare to dabble in anything that is not strictly honest, absolutely, positively clean remedies, sanitative therapeutics, and there are only to be found in either the vegetable or mineral kingdom, and chemistry. Do not misunderstand me, there is no excuse under heaven other than the commercialism, for agents, products, that are unclean, being used for or in the place of clean substances. Not so much of your plutonic ethical negotiations with the vapid portion of the medical fraternity; neither they or all of the public, are born idiots .

I have confidence not in medicine, as it stands today, but as I believe it will be arranged inside of the next decade. Truth is a unit; there can be but one science of one subject, and there is one science of medicine, or at least there must become but one and that must be universal. Nothing under heaven prevents you from giving whatever you think best for your patient, with this exception. No unclean substance should be given to any living soul. D. W. Cathell, M. D., has said no matter how great or small, whether taken from the animal, vegetable, or mineral kingdom, from sponge, the weed, the insect, the mineral; product of the wilderness, ocean, or prairie, we single them out and incorporate them with the great mass to swell the records of rational medicine, but, that won't go for medicine today..

Universal medicine demands a higher, a cleaner standard, it asks for noth-

ing short of clean therapeutics. It is wrong to spend time and labor in acquiring knowledge of anything that is useless or any unclean substance, with the thought of its being classed or used as a remedy or a medicine. Away with such vile conceptions, we cannot falsify, we must not vilify medicine, another moment longer. It is not the times, but, intellectual knowledge that demands this radical change .

"Faith, fanatic faith, once wedded fast
To some dear falsehood, hugs it to the last."

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A CALL TO EVERY PHYSICIAN WHO LOVES HIS PROFESSION, AND WHO WANTS TO DO HIS WHOLE DUTY BY HIS PATIENTS.

By Eli G. Jones, M .D., Burlington, N. J., U. S. A.

It is a sad fact that in 60% of the diseases common to our country, that the mortality is increasing, and many of them that were called incurable 50 years ago are still numbered with the incurable diseases. All this shows plainly that our doctors of all schools of medicine are not doing all they might do for the sick. We are also confronted with the fact that there are 20,000,000 of our people in the U. S. suffering from some form of chronic diseases—and not a chair in any medical college that teaches the student how to cure that class of diseases.

There are 225,000 people in the U. S. suffering from cancer and not a medical college in the U. S is able to teach their students how to cure that disease by medicine. There are over 100,000 people die of pneumonia annually in the U. S. Medical societies meet and declare the disease incurable, twenty-four text books also regard it as incurable. This condition is no credit to our profession ,but rather a burning disgrace to it ,a blot upon our civilization.

We read in the daily press published in our large cities, (where there are physicians of all schools of medicine), letters from the people asking for treatment for some of the most common diseases in this country. This shows plainly that the doctors in those cities are not doing all they might do for the sick. As a profession we suffer "from foes within the profession and from foes without." There are men in the profession that by their writings and teachings, have and are, making medical nihilists of many of our doctors.

Many of our physicians have lost faith in medicine entirely, and have left the profession for other business. There are in this country several forms of drugless healing. Each peculiar cult has its teachers, its followers, vast sums of money have been spent on literature to educate the people how to be cured without any medicine at all. Books, magazines, tracts are being sent broadcast over the country into the homes of our people. As a result of this kind of education there are 20,000,000 people in our country today, that depend upon some form of drugless healing to cure them when they are sick. It is no credit to our profession, that, many of the diseases that we call incurable are being cured by these drugless healers. There was a time in the history of our country that the "old family doctor was loved and respected as the wise counsellor, the father confessor, the friend in need, the man who was prepared to meet any emergency that might arise in the family. How is it today? The old family physician has to take a back seat for the specialist and the surgeons are very much in the "lime light." We have specialists for everything, from ingrowing toe nail to cancer. Many diseases formerly classed as medical diseases, are

now monopolized by the surgeon. Our students as they go out in the world from the medical colleges are impressed with the idea that surgery is the thing, the "money getter," that the physician is a necessary evil. The family physician has become merely an agent for the surgeon to supply him with "material" to practice on. As one doctor said, "I can make more money by sending my cases to the surgeon than I can by trying to cure them myself." In this remark we see the true inwardness of the situation. I have tried to show you the condition of our profession at the present day and now you naturally ask, what is the remedy?

It is in organization, let our doctors "bury the hatchet," and come together as physicians as brothers, "a house divided against itself cannot stand." As a profession we are a "divided house," while we have been quarreling among ourselves, abusing each other, persecuting each other, the mortality of many diseases has increased. Thousands of people in our fair land are dying for want of proper medical treatment. They asked for bread and we gave them a stone. It is now high time that we should drop all "side issues," parties and issues and try and find out the best, the most definite means to heal the sick. If we ever expect to regain our place in the love and confidence of the people, we must show them that we can cure the diseases that are common to our country.

The people sit as a jury before whom every form of healing must be tried out, whether with drugs or without. It must stand or fail upon its own merits. The public don't care about your theories, what they want is results. Our association was formed to meet the demand for a better, a more definite medication for the sick. It was formed for the sole purpose of helping our doctors and all schools of medicine to be better physicians and do more for the sick than they are doing. It occupies a higher plane than any other medical society in the world for it is not organized and build up to perpetuate any school of medicine ,to glorify any ism or pathy, but to benefit the whole profession, by helping them to do more for the sick than they are doing. That is our mission, and it is God's work for it means the saving of human life.

There is no school of medicine in existence today but might do more for the sick than they are doing, but they are handicapped by their early education, their tradition, prejudices, and bigotry. They refuse to see anything good outside of their own system of therapeutics. Thus they are like "Jacob wedded to his idols". While other judicial societies meet and declare this or that disease "incurable."

At our Annual Convention we take up many of that class of diseases and show what we are doing to cure them. A physician's usefulness in any community depends solely upon this ability to heal the sick. Therefore we make a special effort to help our members, to fit themselves to heal the sick. For the first time in the history of medicine, we will have at our next convention a "Post Graduate Course of Lectures on practical subjects by prominent physicians from all schools of medicine . These lectures will appeal to every physician who wants to keep abreast of the times.

For the first time in the history of the world a "Commission on Cancer" has been appointed by our president, to investigate the whole subject of Cancer, its causes, the results of surgical treatment, and also show what has been accomplished by medical treatment. This report if the commission will be looked for with intense interest by medical men throughout the world., but it will settle the question once for all whether there is any

cure for cancer by medicine or not.

Any physician who has graduated at a medical college and is legally registered in hisown state is qualified for membership in our association, each member receives a copy of our "Monthly Bulletin" of therapeutic facts collected from our members every month. It is full of good things to help the busy doctor cure his patient.

Our next convention will be held at Poughkeepsie, New York, Sept. 2nd, 3d, 4th and 5th, 1913. We want live men with good red blood, men who want the best there is in medicine, men who want to do things in their profession, whose hearts and souls are in the work of saving human life.

"Am I my brother's keeper?" If I am, then it is my duty and yours to help when he needs help, to be a better physician and that is just what our association is doing for its members, fitting them to heal the sick. The admission fee is only two dollars. Address our secretary, Dr. W. E. Bremser, 1525 Franklin ave., St. Louis, Mo.

Meet me at Poughkeepsie, N. Y., September, 1913.

A FEW ODD CASES.

By W. H. Tucker, M. D., Eldorado, O.

Mr. J., colored, read parts of chapters of the bible of my own choosing to me without the aid of glasses when he was one hundred years and fifteen days old.

HAD ALL OF HER TEETH.

Mrs. M., blind, native of Virginia, German. Died of broncho pneumonia complicated with a mitial lesion of five years, standing mother of six children, age ninety years, and had all of her teeth which were sound.

A YOUNG TYPHOID FEVER PATIENT.

Baby S., male, age six months, nursing its mother who was in the second week of typhooid. He was taken from the breast and given the bottle and in a few days developed typhoid fever, sick four weeks; recovered.

A YOUNG CEREBRO SPINAL MENINGITIS CASE.

Baby P., female, age three weeks, suffered from a severe attack of cerebro-spinal meningitis, sick two weeks, recovered . Now at the age of six years is very actice but unable to speak but a few words and cannot learn to read.

MENSTRUATED DURING RREGNANCY.

Mrs. S., age thirty, mother of four children, menstruated every four weeks while pregnant for eight months, delivered of a normal male child one month following her last menstruation.

A SHORT CORD.

Mrs. P., white, age thirty-six, mother of six children, delivered with forceps at full term cord six inches long, no post partum trouble.

SOME DON'TS, MEDICAL AND SURGICAL.

The Fellows Co., of New York, have issued a most timely and a valuable little pamphlet entitled Some Don't, Medical and Surgical, which will be sent to any physician or surgeon upon request, with the compliments of the manufacturers of Fellows Sy. Hypophos. Comp.

"Appendicitis Don'ts."

"Cancer Don'ts (Rectal and (Uterine)."

"Cardiac Dont's."

These are a few of the headings and the "Don't under either one of these will amply repay all the trouble you will have in asking for it. Let every reader of The Journal send for it and after a careful perusal we are sure you will hang it in your office for future reference. American Medical Journal.

The Wisconsin Medical Recorder

J. P. THORNE, M. D. } EDITORS
F. W. VAN KIRK, M. D. }

PUBLISHED BY
WISCONSIN MEDICAL RECORDER
JANESVILLE, WIS.

SUBSCRIPTION PRICE

$1.00 per Year in Advance; Single Copies 10c in the United States and Mexico.
$1.25 per Year in Canada.
$1.50 per Year in Foreign Countries in the Postal Union.

ORIGINAL ARTICLES are solicited from our readers. We wish articles which are sent us to be contributed exclusively to this magazine. We will send the writer of any original article, if desired, twenty-five extra copies of the number containing the article. We are also willing to send copies to the professional friends of the author.

LETTERS, CASE REPORTS AND QUESTIONS are desired for our Discussion Department.

We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Reports and items of interest are gladly received.

VOL. 16 APRIL, 1913 No. 4

We have at hand Mulford Working Bulletin No. 6. This is a very valuable little pamphlet as it tells about the history of typhoid vaccination, preparation of typho-bacterin (vaccine), technique of administration, dosage, reaction, etc. In this day more physicians are using the bacterins more or less and it is The Recorder's belief that the more one can find out about the same before using the better for all concerned. The Mulford Company will be glad to forward this Bulletin to any of our readers. (See ad in The Recorder.)

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The editors of The Recorder are very much gratified at the way our journal is being received by its readers. Many letters have been received complimentary to the staff on some of our recent articles and it is with a sense of gratification that we acknowledge the same, through our editorial columns. As we have said before it is the chief aim of the editors of a medical journal to please its subscribers and we are doing our best to give an up-to-date journal filled with practical articles. We have been able to obtain many new subscribers to the Recorder by means of the names sent to us by our readers, so let the good work go on. Send us as many names as you wish to whom we may send sample copies and it will be a pleasure to mail copies of The Recorder to your friends, whom we soon hope to have as our friends—and all friends we count as boosters. The Recorder wants to grow, and we intend to and we are counting on your support in every way. Every new subscriber helps to enable us to give you a larger and better journal, so do not forget to mention to your friends the type of journal we are publishing, for we know that if it pleases you it will please them also.

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The Recorder is very glad to publish the following letter, as the editorial staff is heartily in favor of the International Congress of School Hygiene which is to be held in Buffalo, August 25th,-30th, 1913, and we trust that many readers of The Recorder will be able to be in attendance. The letter explains itself so much better than a short editorial would, that we take the liberty of publishing it.

"May we not depend upon your editorial aid at this time in contributing to the success of the Fourth International Congress on School Hygiene, which is to be held in Buffalo, August 25-30th inclusive, under the patronage of the Honorable Woodrow Wilson.

We desire to bring together a record number of men and women interested

in improving the health and efficiency of school children, moreover to make this Congress—the first of its kind ever held in America—one of direct benefit to each individual community. Such a thing is made possible only by the hearty copoeration of editors in their various publications.

"There is now being arranged a comprehensive program of papers and discussions covering the entire field of school hygiene. There will be scientific exhibits, representing the best that is being done in school hygiene, as well as commercial exhibits of practical and educational value to school people. Nor will the entertainment of the delegates in any way be a minor feature. Plans are being made for a series of social events, including receptions and a grand ball, a pagent in the park, and excursion trips to the great industrial plants of Buffalo, as well as to the wonders of Niagara Falls, and the Rapids. Buffalo itself has just taken up a collection of 40,000, for the purpose of covering the expense of the Congress.

Delegates will attend from all the leading nations, from every college and university of note in this country, and from various other educational, scientific, medical and hygienic institutions and organizations. The Congress is further open to all persons interested in school hygiene. Membership may be secured on the payment of a five dollar fee. Applications should be sent to Dr .Thomas A. Storey ,College of the City of New York, New York City.

"It is greatly desired to secure large membership of the Congress, and to this end, may we not count upon you in spreading the news of the Congress and in calling attention to the benefits following the presence of all those actively engaged in promoting the welfare of the child, the school, and the community?

"The man of tomorrow depends upon the child of today, and the child of today, roughly speaking, spends half his waking hours under the influence of school conditions. Are you interested in making these conditions what they ought to be? If you are, give this Congress publicity. That is one way in which you can help."

Cordially yours,
Thomas A. Storey.

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I hand you the following report which will be of interest to many of your readers.

"The first annual meeting of the Iowa Association of Orificial Surgeons was held in the parlors of the Savery Hotel at Des Moines, Iowa, March 5th. The following officers were elected: President, Dr. W. H. McCartney, Des Moines, Iowa; Vice-President, Dr. C. L. Stoddard, Boone, Iowa; Secretary-Treasurer, Dr. J. W. Buck, Des Moines, Iowa; Dr. A. E. Shaw and Dr. W. A. Guild both of Des Moines, Iowa, members of the Executive Committee. Des Moines was chosen as the place of the next meeting. Dr. E. H .Pratt, A. M., M. D., LL. D. of Chicago, Illinois, conducted an Orificial Clinic at the Des Moines General Hospital in the forenoon. Eight cases were operated on, demonstrating the fundamental principles of Orificial Surgery. Forty of Iowa's foremost surgeons were in attendance. In the evening a banquet was spread with Dr. E. H. Pratt as the guest of honor. The entire meeting was a success." J. W. Buck, M. D., Des Moines, Ia.

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POST-GRIPPAL TREATMENT.

In nervous exhaustion resulting from la grippe nothing equals Cord. Ext. Ol. Morrhuae (Hagee) in tablespoonful doses before meals for adults.

Recovery of strength rapidly ensues, and relapses, so common in this disease, are prevented.—American Med. Journal, Jan. '13.

Wisconsin Medical Recorder

A Monthly Journal of Medicine and Surgery, devoted to the best interests of the profession

VOL. XVI MAY, 1913 NO. 5

METABOLISM its RELATION to HEAT and ENERGY

G. G. BURDICK, M. D. and THEODORE C. F. ABEL, M. D., Chicago

In our consideration of nutrition thus far we have shown that the animal body may be broadly considered as a machine for converting potential into actual or kinetic energy. The potential energy is supplied by the ingested and respired air; by the metabolism of the body these are converted into two forms of actual energy—heat and work. The latter, it must also be remembered, is two-fold—the work of the body itself, such as circuiation, respiration, secretion, digestion, etc., and outside, voluntary or so-called muscular labor.

The income of energy, then, neglecting many unimportant sources, consists in the oxidation of food into its waste products, these being as already stated urea, carbon dioxide and water. How much energy is available from different kinds of food has already been considered.

From the data obtained, it is a comparatively easy matter to determine the total energy income in a specified diet, and a number of standard diets have been arranged by different observers, either experimentally or statistically. Most of these diets are incorrect, on account of the too large preponderance of protein food, this being unavoidable when the averages of diets used by most people are taken, if being an undisputed fact that overindulgence in proteins is one of the chief sources of ill-health in the present day. Most of these diets agree, however, in being available for a total energy income of about one million kilogrammeters in 24 hours.

Considering that only a comparatively small part of this income is obtained from the protein constituents, most of which undergo synthetic changes and thereby cause a consumption rather than a liberation of energy, it would be well if the present adopted diet standards were radically modified in this respect.

This total income of a million kilogrammeters, assuming the figures to be correct for the present, is expended in two ways—work and heat. All muscular action,, whether voluntary or involuntary, is an expenditure of energy, and heat is lost by conduction and radiation, by respiration and perspiration, and by the secretions and excretions. All internal work of the body, gross and molecular, nervous or muscular, mental or physical, simply causes the expenditure of energy in the form of heat.

Observations have determined that the normal daily expenditure of energy in the form of voluntary muscular action or mechanical labor averages about 150,000 kilogrammeters. It is more difficult to determine the normal daily expenditure of heat and energy not due to voluntary or mechanical

work. 150,000 subtracted from 1,000,000 leaves a balance of 850,000 kilogrammeters as the daily expenditure the form of heat. This of course, is only a rough estimate and will vary largely under different conditions.

There is no doubt that a great deal of the unaccounted for heat expenditure results from muscular action. When a muscle is experimentally made to contract, its potential energy is given off in two forms—motion or contraction, and heat. The latter is not inconsiderable, as experiments have shown. The heat liberated by the thigh muscles of a frog during a single contraction amounts to 3.1 micro-units for each gramme of muscle. We may mention here that a micro-unit is that amount of heat which will raise a milligramme of water one degree centigrade; really 1-1000 of a small calorie.

This heat is the result of chemical changes in the muscle during contraction. As these changes depend on the entrance of oxygen into the muscle, they may be spoken of as combustions, or rather explosions. For while we may compare the muscle with a steam engine, in which the combustion of a certain amount of material gives rise to the development of energy in two forms—heat and motion—yet in the steam engine the structural material itself is not consumed, but only suffers ordinary wear and tear. For it is clear that the muscle fiber already contains some substance which takes part in the combustion or explosion . It would be more logical, perhaps, to compare the muscle-fiber with a gun, its contents with powder, and the miniature explosion which is the cause of its contraction with the discharge of the gun.

It has been found that the principal waste products of the muscle which are increased during work are carbon dioxide and sarcolactic acid, neither of which is nitrogenous in composition. The nitrogenous element of muscular waste—kreatin—is not increased by contraction, and may be set down as a product of simple wear and tear. Consequently, the substance which furnishes the energy for muscular contraction is not nitrogenous but carbohydrate in composition, for the amount of carbon dioxide given off is largely in excess of the oxygen supplied by the blood at the time.

All these requirements are met by glycogen or dextrose, in whichever form it may exist in the muscle when it is exploded, and we can thus explain the presence of this substance in the muscle, in the blood on its way to the muscle, and the reason for its storage in the liver.

But this is only one of the katabolic processes of the body. During constructive or anabolic metabolism, such as growth and repair, deposition of new material, transformation of lifeless matter into living tissue, and during the various synthetic processes of protein metabolism, heat is undoubtedly absorbed instead of being set free. But all of this absorbed heat, together with the potential heat of the substances themselves, is lost to the tissues during the various processes of destructive metabolism, of which muscular contraction, while undoubtedly the chief source, is only one of many.

If we assume that the energy appearing as work in a muscular contraction is about one-tenth of the total, we can figure that the heat loss from this source must be very great. For as the extenral work of the body is about one fifth of the total energy expended, the greater proportion of bodily heat must come from this source.

The various secreting glands probably contribute considerable to the total heat, but we must remember that the synthetic processes going on in them, especially in the liver, use up or absorb a great deal of the heat liberated by their work. The fact remains that the blood in the hepatic vein is the warmest in the body.

Another source of heat is the brain, through the processes by which this heat is liberated are still obscure. Its temperature is constantly higher than that of the arterial blood supplying it. That chemical processes are involved in nervous phenomena seems certain.

The blood itself cannot be considered as a source, but merely as a carrier of heat. In fact, by its circulation, gathering warmth from those tissues where heat is generated and carrying it to those where it is lost by radiation, convention, evaporation or absorption, it maintains the constant bodily temperature, which is such a striking feature of our system.

During health the various processes of heat production and heat expenditure are so nicely balanced in the so-called warm-blooded animals, birds and mammals ,that irrespective of surroundings, the temperature of the body is maintained at, in round numbers, 35 to 40 degrees. Where the processes of heat production are not so great as compared with the loss, a condition which we find in the cold-blooded animals, reptiles and fishes, the body temperature fluctuates according to the surrounding medium, being, however always a trifle above this. Hence, the term cold-blooded is really a misnomer, and the term poikilothermic, or of varied temperature, is more correct.

In the warm blooded, or rather constant temperature (homothermic) animals the temperature remains so constant, that a variation of even a degree above or below the normal for that individual must be considered evidence of some disturbance. As any machine in which a constant temperature is required must be supplied with a thermostat or heat regulator, we may assume that nature has made a similar provision in this case. And as a matter of fact, we have not only one, but a number of extremely delicate and sensitive mechanisms for this purpose. They work by either checking the production or increasing the loss of heat in the one case, or by increasing the production or diminishing the loss in the opposite condition.

The two great regulators of heat disbursement are the skin and the lungs, and of these the greatest in the former. It has a two-fold action, by its vasomotor mechanism and by perspiration. When the cutaneous vessels dilate, more blood is carried to the surface and there cooled, so that when it returns to the interior it will tend to cool the body. Conversely, when the cutaneous vessels are constricted, the blood remains in the interior, and will give off less heat to the surface, to be dissipated by radiation. Thus the body accumulates heat and becomes warmer. by the second action the special nerves of perspiration regulate the temperature by increasing this secretion, which evaporating from the skin cools the surface still further, as well as by directly withdrawing heat from the interior by its excretion. For the opposite purpose, perspiration is checked when the body is cold. The latter method of heat regulation fails in humid weather, when the air surrounding the body is already saturated with moisture, and evaporation is retarded or entirely suppressed.

It will be readily seen by this, that the application of heat or cold to the skin will have a directly opposite effect on the internal body by the action of the vaso-motor mechanism.

In the same manner the lungs may regulate the heat output to a great extent. As the respired air requires warming, and abstracts the heat necessary for this purpose from the blood with which it comes in contact in the pulmonary alveoli, it follows that if the quantity of air be increased, a correspondingly greater amount of heat will be lost. Hence the rapid respiration in fevers is an attempt to get rid of some of the surplus heat. Also res-

piration is usually quickened in hot and slowed in cold weather.

The principal means of increasing heat production directly are increased food and muscular exercise, both of which by increasing metabolism cause a correspondingly greater production of heat. Nature has provided an automatic system of exercise to increase heat production, in the absence of voluntary labor. This consists in the simultaneous contraction or tightening of the skeletal muscles in cold weather, giving rise to a certain "bracing" feeling on a cold day as compared with the feeling of lassitde in hot weather. Where these involuntary contractions are not synchronous, a series of motions or "shivering" results, which is an abortive attempt to tighten up the muscles for heat-producing purposes. There is probably a nervous center from which these thermogenic impulses arise .

When the temperature rises above the normal limits to any extent, a condition of fever or pyrexia exists. This is due partially to a diminution of heat loss, but much more to an increase of heat production, metabolism being distinctly increased. The reason is always some toxic material in the system, which is destroyed or burned up by the rise in temperature. Consequently any attempts to check nature's endeavors in this respect should be well considered.

The mechanism for the regulation of temperature is unable to withstand exposure to too high a degree of external heat or cold, or too prolonged an exposure to lesser degrees of the same. In both cases death will take place in the absence of relief. It is probable that in the case of heat, death is due to a greatly hurried metabolism, using up the available capital before it can be replaced. In the case of cold, on the other hand, cessation of life will be due more to a suspension of metabolic processes, causing an accumulation of wastes, particularly in the nervous centers, and a gradual arrest of the life processes.

When everything which has been said is taken into consideration, it is still an open question whether the heat of the body is an unavoidable result of its metabolic activities, or whether on the other hand, the various processes of metabolism have as one of their principal functions the production and maintenance of heat. In view of the various provisions for regulating the temperature, and the disastrous effects of too high or too low variations of the same, it is very likely that we must consider it as an essential feature of life, and not as a mere result of other processes.

PROBLEMS IN THE TREATMENT OF EXOPHTHALMIC GOITRE.

Musser in the American Journal of the Medical Sciences for June, 1912, reached these conclusions:

1. Endemic goitre should not be treated surgically until proper general treatment has been employed for a long period.

2. Surgical intervention should not be advised in cases of goitre associated with functional or organic disturbances of other secretory organs until the associated disorders are removed or relieved.

3. If relapse occurs in spite of general treatment, or in spite of treatment directed against the disorders of other organs, a goitre should then be treated surgically.

4. Medical treatment should be continued from six to twenty-four months. Favorable results should not be promised unless the patient is under the absolute control of a physicin, so that the treatment by rest, diet ,bathing, physical therapy, and so forth may be carried out with precision and continuity.

FRACTURE OF THE PATELLA

By C. H. SUTHERLAND, M. D.
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The patella may be regarded as a sesamoid bone inserted into the strong aponeurotic terminations of the extensor muscles of the thigh.

Fractures of the patella occur most frequently between the ages of thirty and fifty. They are rare in children.

It was formerly believed that these fractures were either the result of direct violence, or of muscular contraction. Recent studies have shown two important facts in regard to their etiology and mechanism.

The first of these is that the majority (nearly 80%) of all fractures of the patella are the result of a direct violence, such as a fall, or a blow upon the knee. In these the line of fracture is either stellate, transverse, oblique, or longitudinal. The second important fact is that fractures which were supposed to be due to muscular contraction of the quadriceps alone, are comparatively rare, and can only occur when the knee is extended.

In the majority of cases formerly believed to be due to muscular contraction alone the fracture is the result of a combination of muscular contraction and of indirect violence.

When a person tries to save himself from slipping or falling, by a sudden contraction of the quadriceps, the knee is flexed.

The patella is fixed below, by the ligamentum patellae, and above by the contracted quadriceps.

The only portion of the patella which remains in contact with the lower end of the femur is the middle, and this is snapped across the underlying femur, as one would break a stick across the knee.

Thus the fracture is usually transverse, and a little below the middle. The line of fracture may be oblique, or longitudinal, in these fractures by indirect violence. Fractures of the patella may be complete or incomplete.

Displacement is rarely found in longitudinal or oblique fractures, but is almost invariably in the transverse or stellate variety.

The separation of fragments in the transverse variety, varies from a distance sufficent to allow the finger to be placed between the edges, to a separation of three and one-half inches.

It is of considerable importance from the standpoint of treatment, to know four conditions which accompany a fracture of the patella, especially the transverse variety. These conditions are:

1. A tear of the lateral portions of the aponeurosis.
2. A folding in of the periostium over the edges of the fracture.
3. More or less hemorrhage into the knee joint.
4. A tilting of the lower fragment forward, less often a tilting of the lower fragment backward.

Hemorrhage into the knee keeps the fragments apart, until it is absorbed.

The folding in of the periostium over the edges prevents accurate approximation . This latter essential to a good union is also interfered with by the separation, and tilting of the fragments. The role which the accompanying tear in the aponrosis plays, has come to be regarded as one of the utmost importance.

A rupture of the quadriceps tendon, or of the ligamentum patellae is as serious an injury (so far as the possible loss of power of extension of the knee is concerned) as a fracture of the patella itself.

It has been shown, that if the patella has been removed, or does not act, on account of a wide separation of fragments, its function of assisting in ex-

tension of the knee, is vicariously assumed by the fibers of the facia lata, which are subject to muscular control, as well as the lateral expansions of the rectus, vasti and sartorius.

The degree of tear in the aponeurosis is therefore not only of importance, on account of its causing separation of the fragments, but also on account of its interfering with the power of extension. Fortunately, as a rule, the tear does not involve the so called reserve portions of the aponeurosi, i. e. the extreme lateral parts, which were referred to above, as assuming the function of extension vicariously.

In refractures the lateral tears are usually larger than in the original injury. Whether bony union ever occurs, after a fracture of the patella, is still an unsettled question .

In the majority of cases the union is a close fibrous one, long union being prevented by the interposition of the periostium . Close union of fragments does not always mean a good functional result. The latter is more directly dependent upon the aponeurotic tears, and the degree of atophy of the muscles of the thigh, which invariably accompanies a fracture of the patella.

Diagnosis: The signs of this fracture are loss of power of extension of the limb, separation of the kne joint, a palpable separation of the fragments, and pain in the knee. The patient is unable to raise the injured limb from the ground, while either lying down or standing up.

The swelling of the knee joint is usually most marked six to eight hours after the injury and needs only to be distinguished from that due to a traumatic prepatella bursitis. The swelling in the latter is quite superficial, causing a more circumscribed bulging without obliteration of the depressions around the patella, as is the case in an effusion into the joint. It must not be forgotten, however, that effusion into the prepatella bursa may accompany a fracture of the patella.

Crepitus and mobility of the fragments can be elicited before much swelling has occurred. In the majority of cases of transverse fracture a gap can be felt between the two fragments. When the fragments are pressed together it causes pain.

Prognosis and Results. Although bony union has undoubtedly occurred, it is very rare in transverse fracture. In oblique and longitudinal varieties it is the rule. In the majority of transverse fractures not operated upon the union is a fibrous one. The strength of this union depends directly upon the degree of separation of the fragments. Union occurs in thirty to forty days. The functional result may be perfect, even though the separation of the fragments is from three to four inches. This good function is due—(a) to the hypertrophy of the reserve apparatus previously referred to: (b) to the shrinking or contraction of the fibers of the quadriceps and the same process in the ligamentum patellae.

Conditions which contribute towards poor results are marked atrophy of the quadriceps, absence of fibrous union between the ligaments and adhesion of the upper fragment to the femur. Union may occur at the time of the original fracture and fail to take place if the bone be refractured, as freqently occurs in cases not operated upon. A fracture of the patella predisposes to refracture. The latter either occurs when the patient begins to walk or after some work. In rare instances it may occur years after the original injury. In recent cases the fracture is through the line of union; in older ones it takes place in the upper fragment. The prognosis is better in the latter variety.

Treatment. The indications for treatment are (1) to get rid of the hemorrhage into the joint; (2) to secure accurate coaptation of the fragments until union occurs; (3) to overcome the atro-

phy of the quadriceps and restore the functions of the knee joint.

The treatment of the joint effusion is the first problem which presents itself, no matter whether the further treatment be operative or non-operative.

The best method to secure speedy absorption of the blood in the joint is to elevate the limb upon a well-padded posterior splint and bandage the region of the knee firmly from below upward with a rubber elastic bandage. This bandage should be left in place for forty-eight hours. By this time the blood is usually absorbed. Instead of this method of hurrying the absorption, massage may be employed twice daily for five to ten minutes.

Many surgeons who use the operative treatment do not wait for the absorption of the blood, but operate as soon as possible after the injury. From my personal experience I believe this is a perfectly safe mode of procedure.

In regard to which method of treatment to choose, operative or non-operative, it may be said that if every requirement of strictest asepsis can be secured, the most satisfactory results will be obtained by suturing the patella.

The hemorrhage into the joint is at once disposed of, the apposition of the fragments is accurate, tilting is overcome, the periostium does not get in between the fragments, and massage passive motions can be begun earlie.r The additional advantages are that the chances of bony union are far greater. One can also repair the tear in the aponeurosis and there is less danger of refracture.

Satistics show us a percentage of 85% serviceable knees by the operative as against a percentage of 67 by the non-operative. Then too the period of convalescence is shortened one-half; surely a consideration to the patient who is usually a laboring man.

On the other hand the open method is no rough and ready procedure. It must never be undertaken save when the strictest asepsis and technique can be adhered to.

It is contra-indicated in elderly patients. In cases where the contusions of the skin is such as to endanger the possibility of obtaining primary union of the external wound. Possibly also where there is little or no separation of the fragments.

As in this paper it is my object to emphasize the operative method I will omit entirely the detail of the non-operative and pass to a description of the technique as we have succesesfully carried it out.

Operative Treatment. Whether an incision which is carried upward or downward is employed is of no importance. The fracture is freely exposed by turning back the flap. The liquid and clotted blood which spills out onto the field is sponged away. Following a suggestion from Kocher's clinic it has been our practice not to wash out the joint cavity nor to further disturb the remaining blood clots. For so doing would only add to the damage of infections.

The periostium and torn strips of aponeurosis which turns in between the fracture edges are now picked up with tissue forceps, removed and held back by retraction.

The fragments and torn aponeurosis are approximated and sutured by means of chronicized cat gut or kangaroo tendon. These suture pass through the aponeurosis and periostium which are one structure in front of the patella. Accurate suture of the lateral tears in the aponeurosis is of equal if not greater importance than that of the patella itself. The structures should be handled as little as possible even with the gloved fingers. Drainage is not employed.

In an open, compounded fracture of the patella, a very serious injury be-

cause one of the largest synovial cavities of the body is exposed, it is wise to deviate from the above outlined technique and to thoroughly irrigate the joint cavity with corrosive sublimate 1:10,000 followed by normal salt solution. All blood clots should be carefully wiped away. All loosely attached fragments of bone should be removed. Particular attention should be paid to the posterior parts of the joint behind the condyles of the femur.

The skin after suture of the patella is closed in the usual manner. The limb is wrapped with strips of shirt wadding from the toes to the hip and encased in a plaster dressing leaving a fenestra over the seat of the operation to facilitate the subsequent dressings.

The cast is left on for six weeks, at which time the fragments are usually firmly united, and daily massage of the atrophied thigh muscles and passive movements of the knee joint are begun.

To sum up the advantages of the operative over the non-operative treatment:

(a) A much higher percentage of serviceable knees, 85 per cent as against 67% by the non-operative.

(b) The period of convalescence is shortened by almost one half.

(c) The danger of refracture is greatly lessened.

DIAGNOSIS OF APPENDICITIS

By HUGH N. MACKECHINE, A. B., M. D.
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Perhaps no one subject gives the medical man the food for thought and consideration, the reason for caution and the desire for a more thorough knowledge for diagnosis and treatment than does appendicitis. It does so because of the frequency of the disease, because of the similarity to many other conditions, because of its varied pathology, and because of its varied symptom complex.

We are frequently accused of a mad desire to do appendectomies. On the other hand we are confronted by statistics which demonstrate the increasing frequency of appendicitis and the decreasing frequency of "inflamation of the bowels." Thus we are on the horns of a dilemma and it is our duty to see we are not impaled either on the one where ignorance and lack of judgment, place us; or on the other where a too evident, and a too ardent operating proclivity places us.

The conditions from which we must make a diagnosis and with which we must familiarize ourselves, are indigestion ,adhesions or constructions as with bands, Lane's kink or Jackson's membrane causing iliac pain, gastric or duodenal ulcer; ureteral stone; pancreatitis; pneumonia.

We are all familiar with the classic symptoms of appendicitis which, when in the following sequence, are more or less typical. Pain nausea and vomiting, local tendencies and muscular rigidity, temperature, leucocytosis.

The pain may begin at any point in the abdomen or lower thorax. It is the earliest symptoms. In the severe cases it is quite sharp and marked and comes on suddenly. In the milder cases it is sharp but with less severity and frequently resembles gas pains with constipation. It early locates in the right iliac region ,especially in the severe cases. This pain is due to the congestion and engorgement of the vessels with dilatation of the whole organ. There is no reason for the irregular location of the early pain. When we find it we must examine carefully for diseases in its location.

Next comes the nausea and vomiting very soon after the onset of pain. It

is of the gastro intestinal type, first the contents of the stomach, then gastric secretions, later some regurgitated bile and, should the case be prolonged and prove serious, the vomitus becomes fecal.

Local tenderness is the next symptom to exhibit itself and with it comes muscular rigidity of the right rectus. Some men are willing to make a diagnosis on rigidity of the right rectus muscle, breeding into that symptom the remainder of the syndrome. Too many cases of indigestion have been known to recover following a diagnosis on this symptom and some of the others, and on subsequent early operation no pathology has been found. Doubtless too many have been operated under such a diagnosis and an apparently normal appendix removed.

The fever now follows with the absorption of septic material. This symptom on which too much stress has been laid in the past, must be considered only in the complex. In some of the most severe conditions, such as a gangrenous appendix, or where the lymphatics have been early occluded, there is little absorption and consequently little fever. It is well not to lay too much stress on single symptoms but to consider the full symptom complex.

The conditions as spoken of above, which are serious, will produce signs which to the careful observer will be evident such as the anxious expression, a constrained position, etc., and these should be carefully noted and weighed. One should never forget the pulse in its various characteristics in connection with all cases. With a high temperature we will sometimes find a slow pulse or vice versa. This should make us doubt the presence of all appendicitis. We should expect a septic pulse with a septic temperature.

Leucocytosis is also a symptom of relative value. The normal varies from 5,000 to 12,000, depending on the individual and the proximity after a meal.

Of more value than simple lencocytosis is the relative increase of the polymorphoneuclears. We may have a normal increase of all kinds of cells or we may have a lymphocytosis producing the increase in whites in a tubercular process, but the relative increase in polynuclears points directly to a septic process. I think we should insist therefore not only on a leucocyte count but on a differential count in cases where we are in any doubt.

A differential diagnosis should include a careful history of this attack and of previous attacks or conditions. In indigestion, acute or chronic, we have a pain which much resembles that of appendicitis. We will frequently get a local tenderness over the ileo caecal valve which is difficult to distinguish from that of appendicitis. We will, however, not get a temperature pulse nor leucocytosis corresponding to the severity of the pain. Nor will we get the sequence as typical of appendicitis.

Many cases have the two conditions coincident and many cases of chronic indigestion are cured by an appendectomy. Moreover the indigestion rapidly recovers when relieved while the appendix will remain sensitive for days following the attack.

Adhesions or constrictions cause a gas pain, much resembling that of indigestion, show early tympany, gradually increasing, marked gurgling and a rapid improvement on relief of the obstruction. There is seldom marked fever and little or no lencocytosis.

Gastric and duodenal ulcer give a different history, exhibit a chronicity and a definite relation to the taking of food, a different location for the pain when it becomes settled. We may have in them a leucocytosis depending on the extent of the disturbance.

Salpingitis often resembles an appendicitis, especially if the latter were

in the pelvis. Bimannual examination will aid in the diagnosis as we seldom find an appendix so far down as a tube.

We will, with the salpingitis, have the local and referred pain, the leucocytosis and the nausea and vomiting, but the latter seldom so characteristic. Cholangitis and gall stones will frequently cause some difficulty in diagnosis especially in the chronic types. With the appendix high up and post caecal we will have a pain and local tenderness that are almost indistinguishable. The nausea and vomiting, the temperature and leucocytosis are similar, but when these latter are marked, the gall bladder pain is quite marked and localized just beneath the ribs. Besides this we would, in a careful history, get the characteristic referred gall bladder pain. The X-ray may be of some value but a negative plate does not prove anything. The pain of ureteral stone may sometimes confuse for a time. A careful history, a urinalysis, the X-ray combined perhaps with ureteral catheterization, will clear up the diagnosis. Pancreatitis will frequently similate but the tenderness will quickly locate in the epigastrium instead of the right iliac region. Also the free fat in the stools which will be found after a few hours will designate the trouble.

Pneumonia may be confused because of the referred thoracic pain but a further examination of the lungs will reveal the lack of other pneumonic signs and an abdominal examination show the real trouble.

In no case of appendicitis should we be too sanguine of our diagnosis and in no case should we ever consent to diagnosing the pathology. Many of our mildest cases clinically are gangrenous while others of an apparent severity show only hyperemia with slight distension.

MATERNITAS

By CHARLES E. PADDOCK, M. D., Chicago, Ill

(Continued from Page 115 April Recorder

The washing of the mouth should be continued through infancy, and when the teeth come they should be thoroughly rubbed every morning with a cloth moistened with boric acid solution, or a solution of bicarbonate of soda. A soft brush may be used when the milk teeth are all in. When solid food is given, waxed floss silk should be drawn between the teeth after each meal . Decay can be prevented by strict attention. The baby's teeth should be examined by a denttist as early as the age of two years and at frequent intervals after. The prevalent notion that decay of the first teeth is harmless is not justified by the facts. Disease of the milk teeth may be the cause of toothache, impaired digestion and deformity of the permanent teeth.

During the ninth and tenth months the child will usually attempt to bear its weight on its feet, and at eleven or twelve months it can stand with assistance. From the thirteenth to the fifteenth month it is usually able to walk alone. Under no circumstances should it be urged to stand or walk, and none of the contrivances for teaching babies to walk should be used; when the time comes and the muscles are strong enough it will walk.

At the end of the first year the baby begins to say papa and mama. Other words are gradually picked up, and toward the end of the second year the baby begins to put words together in sentences of two or three words. In learning to talk, names of persons are acquired first; then names of objects, verbs, adverbs and adjectives come in order; personal pronouns come last.

Undue urging of the child to talk and "showing off" its precocity are greatly to be deprecated.

In occasional cases the breasts of an infant of either sex a few weeks after birth may become swollen with an accumulation of milk which was termed "witches' milk" by the old German midwives. Mothers are often alarmed when the swelling appears, but this will promptly and harmlessly subside if properly taken care of. The breasts must not be massaged. Camphorated oil should be carefully rubbed over the swollen parts which should then be padded lightly with cotton held in place by a smooth binder. This dressing is not to be disturbed for four or five days, when the swelling will be found to have entirely disappeared. Care should be taken in handling the baby not to bruise the tender breasts.

CARE OF THE BABY.

Dresing the Baby.—In a baby's outfit the band is the most important garment. It should be at first simply a strip of soft flannel, and the edges, since hemming and featherstiching press into the tender flesh, should be pinked. Later the all wool or silk and wool barrel-shaped band may be put on. This garment has shoulder straps and tabs over the chest and the abdomen. Sometimes the straps are made adjustable in order that they may be altered as baby grows or the band shrinks. Thes bands must be worn until the child is through teething. If extreme heat causes discomfort the shirt may be removed, as the shape of the band protects the chest and abdomen better than the shirt would do and also leaves the neck and arms free. Bands are made in sizes to fit infants and children up to four years.

The shirts should be opened down the front, and made with loose sleeves so that thy will not bind. They may be either light weight all wool, silk and wool, or, if an all wool band is used, all silk. It is desirable to get the second size in the shirts, as the first size is outgrown in a short time.

The diaper should be made of soft absorbent material, such as cotton or linen birdseye, since the oftener they are washed, the softer they become. The cotton stockinette, shaped diaper is excellent as it fits snugly at the waist, and is large and roomy at the seat. Being made of a fabric that is elastic and yielding, it absorbs readily, is easily washed and dries rapidly.

For the first three weeks the baby should be dressed in diaper, band, shirt and bag. This does away with a lot of unnecessary handling of the baby, and surely the baby must be more comfortable.

The flannel skirts should be made either on a cambric waist which pins in the back, or should be made entirely of flannel in the princess or reform style, opening on the shoulder, with neck and armholes neatly bound. The former is recommended for summer babies, and the latter for winter babies, except where the rooms are keptt unusually warm.

A baby's feet should be kept warm at all times In winter use cashmere stockings long enough to pin to the diaper, and, if no pinning blanket is used, a pair of knitted bootees without stockings. In summer use light cashmere or silk stockings, or knitted bootees without stockings.

White skirts should always be made on waists which open at the back. The material may be a soft finish nainsook or mull which may be hand or machine made. Where the dresses are of sheer material a white skirt may be worn. In this case slip the flannel skirt into the white one, and then both into the little slip or dress, draw the three garments on from the feet up, and with one turning of the baby all three are easily adjusted.

For the slips and dresses use very

soft nainsook and Persian lawns. Choose the simplest styles, such as the bishop style or one that has a yoke formed of tucks and feather stitching. Avoid ruffles and yokes. The length of the dress from the neck down should be about thirty inches, and the petticoats should conform to this length. The slips and dresses are closed in the back with small, flat buttons, and with ribbon or bodkin tape at the neck.

In a cool room or the morning before the bath, wrappers of flannelette flannel or cashmere may me put on. These are superior to the shoulder blankets or shawls, as the sleeves protct the arms, while the shawls being loose are likely to make uncomfortable folds. Tufted quilts of cheese cloth, nuns veiling or silk are convenient articles for the nursery as well as cashmere or zephyr sacques, to use when a heavier wrap is required.

At night use the band, shirt and diaper, and a long loose gown made either of a light twilled flannel or of cotton stockinette. The latter is the better, and can be had in sizes up to two years. It is absorbent, easy to wash, does not shrink and being made with draw string through the hem, can be closed like a bag.

The time for changing long clothes for short ones depends entirely upon the season. In summer it may be done when the child is three or four months old, and in winter at the age of five or six months.

The band, shirt and diaper remain the same in quality and often in size; the flannel skirt and the white skirt are each on a cambric waist in order that the weight may hang from the shoulder. If the diaper slips down as baby becomes more active a diaper waist is advisable, holding the diaper in place without constricting the body. The same kind of nightgown is used at this period as in younger infancy.

Stockings are now worn, also soft kid moccasins or paper soled shoes. The selection of foot wear requires great care. The paper soled shoes or moccasins should be replaced by shoes with soft leather soles as soon as attempts at walking are begun, as babies beginning to walk need better support and foundation for their feet than the moccasins give. All children's shoes should be made on a straight last with full round toe.

At the age of about one year and a half, a light waist is put on over the shirt and band, and on this is buttoned the little drawers and skirts. The drawers should be deep through the seat and short on the side, the seamless drawers being preferable. For summer they are made of soft cambric or nainsook; for winter soft knit cotton and wool. Ankle length drawers can be worn under the white ones. Hose supporters are now used, and as most waists have tabs with eyelets on each side, the pin of the hose supporter is put through these, thus adding to baby's comfort. Both flannel and white skirts being on bands, button the the upper row of buttons on the waist.

For night wear, the night drawers with feet are used, as they give freedom of motion and protect the child, should the covering be displaced. (Note also bed clothes fasteners.)

Play suits and creeping aprons can be purchased in sizes from six months to six years. They are made of blue or pink checked gingham, buttoned the full length of the back. This garment protects the underwear and allows plenty of freedom.

Th Baby's Outfit.—An average outfit for the baby contains the following articles:

6 flannel bands, edges pinked, 5 inches wide, 16 inches long.

4 knit bands with shoulder strap, silk and wool, first size.

4 silk or silk and wool skirts, first size.

4 flannel petticoats—Gertrude pattern.

4 nightgowns.

12 plain white slips.

6 dozen diapers—cotton, birds eye, 24 inches square for first size.

4 cheese cloth or silkoline quilts, 1x1¼ yards square, lined with lamb's wool.

6 cotton sheets.

2 small hair pillows.

1 hair mattress.

4 quilted mattress covers.

2 bath aprons.

4 pillow slips.

Wrappers, sacques, stockings, bootees, bibs, caps, coats, mittens, veil, etc.

1 spool coarse linen thread.

Toilet Accessories.—1 toilet basket, safety pins, small medium and large; 6 towels, 6 wash cloths, 1 soft sponge, 1 brush, soft bristles, soap, 1 comb, 1 soap box, 1 talcum box, 1 powder puff.

Nursery Comforts.—Safety straps for carriage, gocart or high chair, made of leather, easy to adjust. Traveling toilet basket for home or traveling, in appearance resembling a lunch basket, made with granite cup, easy to carry. Child's toilet seat, can be adjusted to any toilet set. Folding bath tubs, the best are made with oak frame, 30 inches long, 22 inches high, 17 inchts wide. The tub itself is made of heavy duck, rubber coated, flexible, with outlet at bottom for emptying after use, supplied with pocket at the end for sponge, etc.

Among other nursery comforts may be mentoned the bed clothes fastener, the small hot water bags, baby record books and scales.

A hot water ba gis an indispensable article in the nursery, but great care must be taken in the use of it about the baby. It should never come directly in contact with the skin, and should not be hot. The skin of infants is very sensitive and burns easily, consequently the testing of the temperature should be made by placing the bag against the face of the nurse or mother.

Drying frames made of white wood with non-rustable hinges are indispensable nursery articles. The little woolen shirts and stockings are stretched on these frames when laundered and will not shrink when drying.

The Bed.—The best bed for the first few months is a wicker bassinet. This basket or bed fits into a stand which can be carried or rolled from one room to another without disturbing the child. In the bed use a soft hair mattress covered with a rubber sheet, and over this place a quilted mattress pad. A half dozen sheets will also be needed. For the coverng use a pair of light soft wool double crib blankets, or tufted cheese cloth or silk comforts.

When the baby is about six months of age the bassinet should be abandoned for a child's bed, and care must be taken in the selection of this bed. It may be of brass or enameled iron with sides which drop. The sides must be high and the rods close so that it will be impossible for the baby to get either its body or head between the bars. Serious accidents have happened in this way. Select a bed which is large enough for the entire childhood.

The mattress should be thin and of hair, not feathers nor wool. Over this place a rubber cloth and then a sheet doubled. In winter a quilt may be placed over the rubber sheet. A pillow may or may not be used; if it is, it should be thin and made of hair. The coverings should be light in weight but warm. The bed must be thoroughly aired daily by exposing every part of it to fresh air and sunlight.

It is a frequent fault to keep the child too warm in bed. If the child perspires, there are too many covers.

Rest and Sleep.—The position in which the baby lies is of no consequence after the first few days; some babies lie on their stomachs, some on

their sides and some with their hands over their heads.

For the first two years at least children should be put to bed at six o'clock. During the second year they should be undressed at a certain time every day, preferably after the morning bath, given a bottle of milk, and put to bed. Usually this nap will last from two to three hours.

Children sleep later in the morning if awakened about ten p. m. and fed; at this time, the napkin should be changed. A healthy child will immediately go to sleep again. Poor sleep in babies is a sign that they are not well. Infants who are fed three or four times during the night frequently do not sleep well. Mothers sometimes sleep with thir babies, and the result is that nursing becomes more and more frequent until the baby finally suffers from indigestion and disturbed rest. Insufficient or too much clothing may cause restlessness. Sleepless babies are as much in need of a physician's care as if they were seriously ill.

At first the baby should sleep nine-tenths of the time, and though the directions are to awaken and nurse it every two hours, often the nurse cannot arouse it, and even if she is successful, the child will sometimes fall to sleep again before the nursing is finished. Directly after each nursing the child should be put back into the crib, and remain until the time comes to nurse again. As a rule with clock-like regularity the little thing will let its wants be known.

(To be Continued.)

CHRONIC URETHRITIS

NELSON F. McCLINTON, M. D.
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When is a urethritis chronic? It seems the concensus of opinion to call acute cases persisting longer than six weeks chronic. It really is an acute attack which has become localized.

Oberlander distinguishes two principal changes in chronic urethritis a soft infiltration and a hard infiltration.

The first is a small celled infiltration, mainly around the urethral glands, the second form is a connective tissue formation taking the place of the small celled infiltration, erosions, elevated granular areas, narrowings and beginning stricture may be seen in both the above classifications.

Chronic urethritis as stated above is due usually to a localized inflammation, consequently the determining of the location of the various foci is one of the most important points in the treatment of the disease, viz., to have as definite an opinion as possible as to location of lesion and not subject the whole tract to treatment on general principles or with the idea that by so doing, the affected points will be unable to escape the treatment. In a way sort of a shot gun attack.

It may be an anterior or posterior urethritis, subjective symptoms as a rule are not of much aid as a means of determining locality of the lesion. The discharge may be the same from both sources, in posterior urethritis the urinary symptoms are more apt to predominate. Given a case with a discharge that has continued more than six weeks the following method has proven a satisfactory method of arriving at a diagnosis as to location. 1st, If discharge present at meatus, make a smear stain and examine, according to Guiteras:

Gonocci are found at the end of 2nd month 20%
Gonocci are found at the end of 3rd month 17%
Gonocci are found at the end of 5th month 14%

Gonocci are found at the end of
2 years 5%
Gonocci are found at the end of
3 years 2.5

The more numerous the pus cells the more apt to find the gonococci present. If there is no discharge at meatus shreds should be examined, also the material obtained by the massage of the seminal vesicles and prostate, in fact, regardless whether the meatal discharge has or has not gonococci. It is very necessary as will be shown later to examine the vesicular and prostatic secretion.

Certain conclusions can be drawn from the examination of the discharge, one is that failure to find gonococci does not mean none are in the tissues, the second, that a mixed infection where saprophytic germs and also the colon, staphylococci and streptococci are frequently found may keep up a discharge which undoubtedly would have disappeared had the gonococci alone been to blame.

Third. If the examination shows the gonococci or the other pathological germs to be numerous, instrumentation of the urethra should be avoided and treatment instituted with a view to eliminating the bacteria or at least making them less numerous before commencing use of instruments in the urethra.

2nd. With a small soft rubber catheter inserted to the bulb and using an irrigating tank raised only a short distance so pressure will be low, wash out the urethra using a clear solution either of sterile water or boric solution, catch return flow in a glass, if solution is clear, no anterior involvement. If solution is turbid or shreddy, anterior urethritis, continue washing until solution returns clear, then withdraw catheter. Have patient urinate one ounce and stop, if turbid posterior urethra is affected. Have patient pass remainder of urine, if this is clear it shows the infection is closely localized in posteror urethra, if turbid or cloudy it means that the bladder, ureters or kidneys may be involved or else that the drainage from the posterior urethra into the bladder has been considerable.

To repeat.

If washing from anterior is clear no anterior urethritis.

If washing from anterior urethra is turbid, anterior urethritis.

At first ounce of urine after washing anterior urethra is clear no posterior urethra.

If first ounce of urine after washing out anterior urethra is turbid, posterior urethritis.

If remainder of urine is turbid either considerable drainage from posterior urethra into bladder, or bladder ureters or kidneys are infected.

III. It is well known that the prostate and seminal vesicles are affected in a large percentage of cases of chronic urethritis.

In order to determine if this is the case, after the above tests have been made, either by use of the catheter or by means of gravity, inject four or five ounces of a clear solution into the bladder, then thoroughly massage the prostate and vesicles the solution is then passed and examined. It is often necessary to centrifuge this solution in order to obtain enough material to stain. Regarding the findings in the vesicular or prostatic secretion, no gonocci may be found however the main rule to go by is the number of pus corpuscles present, roughly speaking if pus corpuscles are present in greater proportion than 3 or 4 in a microscopic field, one can feel safe in concluding that either the vesicle or prostate or both are involved. Of course it is taken for granted that at the time of massage any changes in the prostate or vesicles discernable by palpatation were ascertained.

Are GERMS the CAUSE Or EFFECT of DISEASE

By F. F. CASSEDAY, Ph. B., M. D.
Portland, Oregon

If in this year of Grace Nineteen Thirteen it should transpire that we will be compelled to give up the germ theory of disease what an upheaval it would make.

The whole theory of pathology as well as therapeutics of a certain kind are tied up to the germ theory. All the present text books will be obsolete, all the serums and vaccines will have to go, and the medical profession will to a large extent, be compelled to read just their views on drug action.

Many thoughtful men, both physiologists and physicians, have felt for some years that the germ theory was upon rather unstable ground. There are so many diseases, like scarlet fever for instance, where no germs are present and yet the ravages of scarlet fever are terrific and it is infectious and contagious.

A short time ago the profession, especially the surgical end of it, preached and practiced the doctrine that in pus accumulations after removal or opening, it was unwise and dangerous to wash out the cavity with sterilized or antiseptic fluid for fear of producing Mixed Infection, so drainage only was, and is, the proper practice. For producing passive immunity and curing certain diseases, serums and vaccines of dead and live germs of certain specified breeds and sorts to produce certain results, was the vogue. It would not do to mix the sorts.

Now the profession has turned face about and some genius has proposed a shot gun vaccine with all the dead or live germs mixed together—Phylocogens—I believe the name is of this new shot gun combination. Mixed germs is now the proper caper, though a short time ago there was a deadly fear abroad of mixed infection. Some wise philosopher will explain it all to us no doubt, but who will explain his explanation?

Many thoughtful men are coming to believe that fever in diseases is helpful rather than harmful. That fever is the process of helping to destroy waste and useless material by increasing the oxydizing power of the body.

The long known power of the old familiar enzymes like yeast, rennet, etc., and their tremendous power in minute quantities, without parting with any of their activity or peculiar strength, shows the wonderful power of matter in a minute state of subdivision.

Now come the Colloidal metal suspensions, the most powerful barring Radium, catalysts ever discovered. Their power cannot be measured, and their activity continues beyond the power of vision, with the most powerful microscope, to detect it. The Colloidal Platinum suspension, by means of the electric current in water, is invisible to the eye armed with the highest power microscope. Nothing can be seen in the water. With the Ultra Microscope the marvelous particles of platinum can be seen in the water like stars in the heavens on a starry unclouded night. This invisible unseen suspension, diluted and subdivided beyond anything ever dreamed of, still possesses the power to split fats and form invert sugar, and produce many other curious actions by its mere presence in a most minute quantity of the flind with other insoluble elements (i. e. insoluble without the presence of the colloidal platinum suspension). These starry minute particles of platinum revolve about certain axes in the field—the so-called Brownian movements.

This demonstration of the power of this catalyst in this diluted form, run-

ning up to the proportions of 1 to several millions, taken in connection with the demonstrations of the effect of Radium and the rays, emissions, or emanations thrown off by Radium lead us to only one conclusion:—namely that Radioactivity or the force of Radiation which acts to counterbalance the force of Gravitation in the universe is the emanation ,or power, or entity, which degrades all matter, carries disease, maintains life, and supplies the power to elements (drugs) to cure disease. I have fully elaborated the new theory of drug action in a recent paper. This I have termed "Radiation the force which maintains life and cures disease." The emanations from diseased tissue, poisonous gases, noxious rays or emission from powerful poisons like arsenic, lead and other elements, which are present in the soil and minerals of the earth, the air we breathe, and the unknown rays projected upon us by the the stream of light pouring upon the earth continually.

Again recent experiments with unglazed filters show some disconcerting things. Germ laden solutions from some thirty different diseases have been put through these filters. They were examined after passing through the filters, and not a trace of a germ could be found even with the microscope. But these filtered solutions produced the diseases just the same.

Carrel also gave the germ theory a hard jolt very recently.

In making his examinations of animal fluids to heal wounds he found the dog fluid would heal the dog wound but not the rabbit wound, and vice versa. The horse fluid would heal the horse wound but not the human wound. Ergo the vaccines, serums, etc., cetera developed from germs and passed through certain animals would not be of avail for the human, because the horse or cow organism modified the poisonous germ laden fluid to suit its own body needs. The body requirements of the horse and cow in the way of catalysts are not those of the human body, and have nothing in common, except certain type forms of organs, and these are elementary and not essential.

Animal catalysts are peculiar to each form of animal life, and are not interchangeable. The body chemistry of each is individual and peculiarly fitted to do its own work.

The transcendental power of finely divided matter opens a new field in physiology, chemistry, physics and medicine. We must consider the rays, the emanations, the emissions, the miasms, if you please, given off by all forms of matter, for these by their power, their speed, their penetration, and elusive character, must be the true cause of disease. When we have finally analyzed these to the limit of human vision and by means of instruments of precision, we will be able to use the force of Radiation to cure disease by imitating the body processes and reinforcing them when necessary.

418 Dekum Building.

The selection of a suitable cathartic for any given case is one of the most desirable of accomplishments for the medical man. The difficulty in many cases is entirely owing to the fact that a study of cathartic remedies has not been attempted and thus simple laxatives are used where saline purgatives are indicated, hydragogues are given where simple purgatives should be prescribed, and so on.

The chief agency in bringing about this lack of materia medica knowledge is the complex assortment of laxative specialties which the physician is daily importuned to prescribe, and which has resulted in a deplorable condition, viz.: our official medciines have seldom had a fair trial to show their great superiority over all others. Monthly Ther. Topics.

OPHTHALMOLOGY and OTO-LARYNGOLOGY

Conducted by
J. P. THORNE, M. D.,
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TUBERCULAR DISEASE OF THE UVEA.

Dr. T. Harrison Butler has an excellent article on this subject in the English Journal, the Birmingham Medical Review. Among other things he says:

It is now fully recognized that the tubercle bacillus plays an important part in the etiology of the inflammatory diseases of the eye, and that many conditions which we were accustomed to ascribe to syphilis, to the arthritic diathesis, or to malformation, are in reality due to active or obsolescent tubercle.

It is somewhat difficult to state the exact proportion of tubercular inflammations of the uvea in an ordinary ophthalmic clinic. My own figure is about 1 per cent. I have included as tubercular those cases in which I obtained a reaction after a subcutaneous injection of old tuberculin; those presenting obvious signs of tuberculosis elsewhere in the body; and cases with a strong family history of tuberculosis, in whom any other etiology such as syphilis was extremely improbable. The disease has been not less frequent among my private patients, although here the diagnosis is less certain, because they are unwilling to submit to the confinement in bed necessary for the tuberculin test.

A careful study of the literature of the subject and of a sufficent number of cases will almost inevitably lead to the conclusion that the views enumerated in even modern text books are erroneous. It is held by many that ocular tuberculosis, using the term to include both direct infection and the action of tuberculo-toxin, is very common, that it is often benign in nature, and that it is markedly amenable to the curative action of tuberculin. This need cause little surprise, for we are all aware that the records of post-mortem examinations show that fully 75 per cent of all actions afford evidence of active tuberculosis. If Von Pirquet's reaction be accepted as a sign of the presence of tubercle then the figure rises to 90 per cnt.

My experience of ocular tuberculosis has been ususual in one respect. Up to the present nearly all my cases have recovered or become very much better. Whether this is due to the fact that I have treated them all with tuberculin or whether it is a mere accident, I know not. I am, however, fully aware that ocular tuberculosis often ends in total destruction of the eye, and even in general dissemination and death. Weeks, in his recent text book, speaks as follows:—"In large tubercle of the choroid enucleation should be resorted to for the purpose of relieving symptoms due to the local process and to prevent the spread of tuberculosis." This sentence is quite typical of the text book view of the disease. In answer to this I would suggest that, as the prognosis is generally evry favorable, it would be criminal to remove the eye, and that such a procedure could do little to prevent dissemination, because choroidal tubercle being always secondary to a primary focus elsewhere is evidence that dissemination has already taken place.

My experience of tuberculin therapy in uveal tuberculosis has been a happy one. I have seen improvement in every case for which I have used it, and in

many I have been able to follow the disease to a complete cure.

DON'T KNOCK.

In a publication issued by a large wholesale house we came across a bit of advice offered to retail merchants which will also apply to physicians. While intended for storekeepers the idea and principle applies equally to medical men.

Dr. Jones says to a patient, Dr. Smith is no good and Dr. Smith says to the same patient, Dr. Jones is no good. What is the result? Quite likely the patient believes them both and when in need of a physician again goes to neither.

The following is the advice from the wholesaler:

Where does the consumer get the seed that gives rise to distrust of storekeepers?

Some retailers, and we hate to say it, needn't look very far from home to find the source.

One doesn't have to go very far to find a retailer who will pull a doubtful expression when the merits of a competitor are talked .

And when the good points of a rival are recited by a customer, a merchant's response is often a sentence beginning with "Yes, but—"

One of the best ways to inspire confidence is to show extreme fairness to a competitor. A man who'll be fair with a rival is pretty apt to treat customers honestly, and customers know it.

It does no harm for a retailer to admit the good points of his competitor's system. If the competitor has good points, denial of them often betokens fear that your own weaknesses will become known.

A few merchants—and too many at that—believe that local co-operation will steal away the fruits of healthy competition, but strange to say, the most successful stores are found in towns whose commercial clubs are strong.

A knock frequently raps the knocker.

PETROLATUM AS A SUBSTITUTE FOR BECK'S PASTE.

At the recent meeting of the Louisianna State Medical Society, Dr. Peter S. Salatich of New Orleans read a paper on the use of petrolatum as a substitute for Beck's paste. According to the report in Journal A. M. A., Dr. Salatich said:

Yellow petrolatum is easier to handle than Beck's paste and more readily obtained. Beck's paste requires a special syringe and some trouble to use. The methol I use to prepare it for injection is simple. Petrolatum can be purchased in flexible tubes, already sterlized. Sterilize the amount necessary in an open vessel, set in the sterilizer or water bath, then draw it into one or more ordinary glass syringes and use partly warm or cool, as is done with Beck's paste. In the most foul and freely suppurative cavities, after one injection and without any other treatment, all odor and suppuration diminish. After an incision has been made (only a small one is necessary when petrolatum is usel), all the pus is pressed out; the cavity is then filled with petrolatum and the wound needs no dressing for two or three days, at the end of which time very little odor and pus remain. The procedure is then repeated and the dressings can remain for a longer period, only wiping of the abdomen with alcohol being necessary. It is marvelous how rapidly healing takes place in cases in which the entire wound above the fascial layers suppurates and with less danger of hernia resulting.

MISCELLANEOUS

SOME NOTES ON DIABETES MELLITUS.

By J. R. Etter, M. D., Crawfordsville, Ind.

For the last few years, there has been a wave of literature sweeping over the country regarding the cause and treatment of diabetes.

There has been a very heavy bombardment by numbers of our eminent (?) men, who have arrived at the conclusion that the whole cause rests with the pancreas, in conjunction with the liver. Carl Van Noorden in a recent paper has taken that position. So the cause and treatment of diabetes has been going up and down the whole line of speculation, until one is at a loss to know where the cause lies. But a large part of the profession have decided that "diet" is the main cure. Why they have arrived at that conclusion, is a mystery to me. A large per cent of our cases that have had the disease for a year or more, are anemic.

In my study of physiology of digestion and assimilation, I have found that the various proteids and hydrocarbons are necessary to the nourishment of the body, as well as other ingredients. Diabetes is a disease that finally kills our patients by inanition. If it is necessary that ordinary people should eat a variety of food in order to have good health, then why should our anemic patients be fed foods that fail to keep people healthy, then why not give such foods to our diabetic patients. It has been claimed that certain goods are converted into sugar, in the diabetic. It is not shown how much of the food given has been converted into health building process, as this would be against their theory.

Theory, oh theory, how often you have instilled into the profession the idea that you were right, and how many patients have gone under the sod, because you did not use your judgment, you dieted your patients to death, because someone who was not better informed than you, had said so.

Van Noorden in his recent paper claims that the liver is the great sugar factory of the body, and that the pancreas are only secondary, when duct is obstructed. His paper occurred in the "American Journal of the Medical Sciences in January number 1913." In my 38 years practice I have had a number of diabetic patients, ranging from mild to the most severe. I will cite a case that I had about 15 years ago, and it will indicate my view of the case and treatment of the disease. The reason that I cite this case is, that two doctors at different times had the patient under their care for more than a year, and both of them diagnosed the case clearly diabetes, and both of them kept the case on the most rigid anti-diabetic diet, the case losing ground all the time.

I will say in passing, that the two physicians who treated the case before coming to me were as competent as any in the state, but they followed the dietary theory, and failed. Case: Married woman, about 20 years old: very emaciated; passing seven pints of urine in twenty-four hours; sp. gr. 1047; acid reaction; sugar in large quantities but amount not noted; digestion bad; could not longer put up with the dietetic regimen; was starving to death; the things she was allowed to eat had become obnoxious to her; and the things she was not allowed to eat, was her main desire, so that she was on a general nervous tension all the time. On examination ,there were several hemorrhoidal tumors which remained protruding for near six months, before that time she had been able to reduce them. They were very much inflamed and gave great pain. There was also a metorrhagia, which had been

almost continuous for a year. There was constipation and many of the usual symptoms that follow the various conditions noted.

In fact when the case came to me, it was a typical case of diabetes, of more than a year's standing ,and was continually getting worse. In making up my diagnosis, I took into account the various conditions that caused nervous irritation, and that to my mind caused the anemic condition.

I concluded that the hemorrhoidal tumors, alone, would cause nervous prostration. That the continuous loss of blood from the uterus would do the same, so I found two conditions that would cause extreme .debility—anemia — indigestion — constipation — sleepliness and the whole catagory of diabetes in the later stages. I attempted to relieve the visible conditions. First curetted the uterus ,which stopped the bleeding. Then injected the pile tumors one at a time, until all were gone. I also decided, that according to the physiology of digestion and assimilation which is laid down by our best authors, the rigid anti-diabetic diet to which she has been subjected for a year or more, was sufficient alone, to cause the anemia, and that the sensible thing to do was to attempt to nourish her, which I did by giving her such variety of foods as is given in other cases of extreme debility, utterly disregarding the dietary laid down for diabetics. To make a long story short, will say that in six months she had gained her usual health and weight. I had a sample of urine submitted every month to see if sugar had returned, but there was none afterwards. After gaining her health, she was for several years teacher of stenography in a business college and is now doing hard stenographic work in a nearby city. Such medication was given as would aid in their functionating properly, and to build up the general system, the same as if no diabetes was present. I did not then, nor do I now think that the sugar eing thrown off in the urine is the disease. If a strict dietary, as recommended by some authors, be given a perfectly healthy person, they will not long remain in health, so why should we expect a patient already sick to long survive on it. The undertaker is generally called "to bury the physician's mistake." There has been many fine spun theories as to the cause of diabetes and they last a year or two when they are shelved and another comes up. The peculiar thing is, that that profession grasps each one, and works at it till another one comes along. I do not believe that a diet that merely lessens the amount of sugar thrown off by the kidneys, at the same time not containing the ingredients necessary for the upbuilding of the patient, is any sign that the disease is being controlled. If you give a diet that one-half is converted into sugar and the other half is tissue building, I am sure your patient will do much better. My notion is, that anything that will cause a constant irritation to the nervous system, will tend to cause diabetes and that instead of devoting ourselves to starvation diet, we should look to the other factors. Many of the cases that have come under my observation have a sluggish liver, bad digestion, chronic malaria, chronic troubles of the uterus and appendages, etc. So my attention is directed to the correction of them.

♣ ♣ ♣

Haudek advises the use of a bismuth meal six hours before the patient comes for examination. The distribution of this meal is first noted, then a second is given and the stomach watched to note the peristaltic action, size, position and form. By employing the technic Holzknecht has arranged a series of symptom complexes by which he is enabled to diagnose the various types of gastric ulcer.

NITROUS-OXIDE-OXYGEN ANESTHESIA.

By Wm. F. Waugh, M. D., Chicago.

Southgate Leigh contributes a second article to The Virginian Semi-Monthly upon his pet method of inducing anesthesia. The paper is mainly interesting as showing how far a man will go in advocacy of a hobby. Undismayed, he refers to the general condemnation of the method, but insists that as used by him it is all right. Thus it must be considered a one-man method, and one not advisable for any other to attempt.

Dr. Leigh adduces as evidence the complimentary remarks made by visiting physicians.—as if they would make any other; nevertheless he admits that they did venture the criticism that his method certainly required extensive training on the part of the anesthetist. So intricate is the procedure that, as Leigh himself says, "no description of this method of anesthesia can possibly give one a correct idea of the subject."

Some of those who have attempted it, relying on anesthetists who had been trained in the use of the ordinary anesthetics and "using complicated apparatuses" (sic) have "had most unpleasant experiences."

"The main difference in this respect," i. e. safety, says Leigh, "between nitrous-oxide-oxygen and ether or chloroform is, that the former can not be given without skill and training, where as the latter can be administered, after a fashion, by the inexperienced, but at the expense of the patient's comfort and safety." The machines prepared by manufacturers to obviate the difficulties of the method are condemned unreservedly, and the evil happenings largely blamed upon them. These statements by its advocate may give some idea of the troubles incurred by giving trial to the method.

As to the fatalities, the author tells us they have been but few; that half of these occurred in desperate cases while the rest he attributes to faulty "apparatuses" or to anesthetists without practical training. "In each case the statement was made that cyanosis was marked." Cyanosis therefore is a peril in this method far above what it possesses in ordinary anesthesias. "We look upon cyanosis as a sign of danger and never permit it, even in a slight degree." (Italics are Leigh's). If the patient cannot be kept quiet without cyanosis, the anesthetist "shall immediately discontinue the anesthetic, and if necessary change to ether." Then he does not consider cyanosis so perilous in other anesthesia? Nothing could speak more emphatically of the dangers of nitrous-oxide-oxygen as given by Leigh. Yet, in his 100 cases, he has had no fatality and has "noted no depressing effects of any kind." None whatever? Whence the experience leading to the emphatic warning about cyanosis?

"Some critics insist that ether, morphia and scopolamine, and novocaine infiltration produce the greater part of the anesthesia. This is incorrect. Nitrous oxide is the anesthetizing agent. We give usually morphia sulphate, grain 1-6, and tropine sulphate, grain 1-100, one-half hour before the operation. In more than half of our cases we use no ether whatever. In laparotomies, we usually add from a few drops to two drams of ether, to assist in relaxation. We nearly always infiltrate the tissues with novocaine." Is it possible that Dr. Leigh has been toying with the hyoscine-morphine? Or is he quite ignorant of the differences between "scopolamin" and atropine? If this be the index of his pharmacologic attainments we must congratulate his lucky patients.

Some critics object to the difficulty experienced in securing complete quiet and relaxation. Leigh's suggestion is "the skill and experience of

the anesthetist''—which can only be acquired at his own hospital, as his methods can not be described intelligibly. Even so, he acknowledges that ''we can not expect to have quite so profound and continuous relaxation as with ether.''

Leigh's advice to beginners:

1. Obtain a simple uncomplicated apparatus.
2. Witness the work of a skilled anesthetist and learn from him the details of the method.
3. Begin with short cases first (sic) and gradually feel your way with longer ones.
4. Do not attempt abdominal cases until thoroughly and practically trained.
5. Watch color, respiration and pulse constantly.
6. Give your entire attention to the patient, permitting nothing to divert your mind, even for a moment.
7. In case of the slightest doubt, stop the anesthetic and remove the mask at once.

His final conclusion is: ''We do not recommend it for general use by the profession, but believe that it should be employed in every well-equipped hospital.''

The only conclusions logically to be drawn from this presentment are, that the method is not very effective, is so unsafe that its use is prohibited except to those who take a prolonged course of instruction in Dr. Leigh's hospital and use his special apparatus; and that even then one must remain in a state of constant trepidation while using it.

The singular thing is, that that safe and effective anesthetic, nitrous oxide, can be tortured into a method presenting such perils and disadvantages.

♣ ♣ ♣

In remitting kindly send by bank draft, post office money order, express money order or registered letter.

MEDICAL JOURNALS.

By Russel J. Smith, M. D., Bancroft, Idaho.

Medical journals are much like people—one gets what one looks for, searches for. All medical journals worthy of the name have good in them. Perhaps there is much that is trashy in many of the cheaper journals but every issue has some one article or suggestion worth the annual subscription.

Take the Recorder for February—the department of surgery contains an article that is fairly worth one dollar.

The ad pages are an important part of any medical journal.

The American Journal of Clinical Medicine contains on every page some suggestion that would be worth dollars to the clinician. The typography is excellent ,the paper fine, the whole journal a work of art, each issue well worth the annual price.

Bound journals, using care and judgment in the selection, are to my mind much more valuable in practical information than medical books, and I would emphasize the advice given in the editorial, ''Medical Reading,'' buy fewer medical books and spend more of your time with your journals. Select your journals carefully and read them. Look for the practical suggestion, for the good in them, ignore the bad, and you will come to the conclusion that a good medical journal is always worth the price you pay.

Medical books are important adjuncts of our professional equipment, but the ordinary fairly busy general practician must use his medical books as books of reference, I think necessarily so.

His journals bring to him monthly the latest advances in therapeutics, important suggestions, reviews and abstracts that are obtainable only from these sources. The busy practitioner

is kept in touch with current medical opinion and obtains much valuable information in easily digested form, coming to him as it often does when puzzled over some trying case. At this time, the suggestion in point is worth dollars.

Medical journals are much like people—they have their good and bad points, and in my experience with both during the past twenty years, I find the good predominates.

THOUGHTS ON RHEUMATISM.

By J. A. Burnett, M. D., Hartshorne, Okla.

Rheumatism and rheumatic conditions is a very common complaint for the human race. It is so common that the average layman can diagnose it. Rheumatism affects various parts of the body in different ways as there are different kinds of rheumatism. Any disease that can cause such pathological changes as rheumatism deserves due attention at once as it may do permanent injuryafter it reaches a certain stage.

Everybody is familiar with the cracked backs, stiff joints and fingers drawn out of shape in old rheumtic cases that have neglected proper treatment. As rheumatism may cause permanent deformity when it reaches a certain stage it is very important that it should be properly treated in the early stages. Some think that the uric acid present in the system is the cause of all cases of rheumatism. Rheumatism is the cause of many painful conditions.

Some believe rheumatism is the cause of nearly all diseased conditions. Various drugs and combinations of drugs are used internally in the treatment of the various forms of rheumatism.

Salicylic acid, sodium, salicylate,, potassium iodide, calcium, etc. are usually the interral remedies. Oil of wintergreen or salicylic acid is the usual external remedies. Some report good results from solutions of magnesium sulphate used locally, but this has given poor results for me.

Dr. A. B. Jackson reports good results by the hypodermic use of magnesium sulphate. See his articles, "The Injection of Magnesium Sulphate in Acute Articular Rheumatism," New York Medical Journal, June 24, 1911, and "The Treatment of Rheumatism by the Injection of Magnesium Sulphate," The Practitioner, Jan., 1912.

I recommend that the reader read the book by Dr. John Aulde on "The Chemic Problem in Nutrition (Magnesium Infiltration)". Dr. C. H. Duncan reports good results by autotherapy. See his article "Autotherapy in Acute Articular Rheumatism; Report of Case," Boston Medical and Surgical Journal, March 6, 1913.

Sodium salicylate is the most commonly used remedy by rectum. I will refer all who are interested in the rectal use of sodium salicylate to Dr. Heyn's article, "Acute Articular Rheumatism Treated by the Rectal Administration of Sodium Salicylate." J .A. M. A. April 6, 1912.

External, rectal and hypodermic medication are all important considerations in the treatment of some cases of rheumatism. Sodium salicylate is used extensively in many cases. I would refer to three articles all in the J. A. M. A. which will throw much light on this one drug. "The Relative Value of the Natural Synthetic Salicylates—a Study of the itLerature," J. A. M. A. Dec. 7, 1912.

"The Purity of Commercial Sodium Salicylate," J. A. M. A., April 12, 1913.

"A Study of the Toxicity of the Salicylates, Based on Clinical Statistics," J. A. A. M., March 29, 1913.

The hot air apparatus, therapeutic lamps, vibrators and various other things are often seful in rheumatism. Rheumatism is a good specialty. It is a disease well suited for office practice.

The Wisconsin
Medical Recorder

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PUBLISHED BY
WISCONSIN MEDICAL RECORDER
JANESVILLE, WIS.

SUBSCRIPTION PRICE

$1.00 per Year in Advance; Single Copies 10c in the United States and Mexico.
$1.25 per Year in Canada.
$1.50 per Year in Foreign Countries in the postal Union.

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LETTERS, CASE REPORTS AND QUESTIONS are desired for our Discussion Department.

We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Reports and items of interest are gladly received.

VOL. 16 MAY, 1913 No. 5

SNOBBERY.

In the days when America was fighting the battle of Anglo-Saxon freedom against mother England, the royal troops caght a Carolinian named Hayne and hung him as a spy. Public sentiment throughout the Colonies was aroused, and every effort was made to rescue the victim from so ignominious a death, to all of which the English turned a deaf ear. Shortly after, Major Andre, one of the darlings of the English court. an accomplished cavalier and a scion of a really good family was captured and condemned to the death of a spy. What an uproar. Protests, beseechings, supplications incredulity, that the Americans could really think of hanging Andre. But Washington stood firm. He recalled the fate of Hayne; and sternly refused to make a difference in favor of Andre because he was English. The only way to secure equal rights for Americans was for the latter to insist upon them. Andre died on the gallows, and subsequently American prisoners were accorded the rights of civilized warfare.

The snobbery that would have spared Andre still lives. Anything European must perforce be superior to the native article. Just now it is Germany that receives the homage. Here's the case: A German doctor announces that he can cure consumption. Nothing very startling in that—anybody can make claims and we have heard just about a million men claim that they can cure consumption. It does not worry us. But, this is a Deutscher Arzt! True, in his own country his announcement has been received with little favor, and a strong disposition on the part of his fellows to hail from Missouri. But he comes from Germany and lands in America ready to demonstrate his method, etcetera. However, he comes here against an obstacle in the laws of the land . Before anybody may practice as a physician he must get legal permission, first proving his qualifications. Every American doctor must do this and very hard some of them find the ordeal. But then this is a German! Naturally we stand by with bated breath while the very superior being shows the examiners how much more he knows on the topics they present than they themselves do. Well, not exactly. Now comes Winifred Black, in that doughty sheet ycleped The American and makes an impassioned protest against subjecting the German to the legal tests. Hold the native up and if at all possible, deny him the right to earn his living by his profession; but let the German through without let or hindrance, because he is a foreigner.

Winnie, suppose you inquire what would happen if some great big Amer-

ican doctor were to go to Germany or England or France, or any of the little six by nine European statelets, and demand the same privilege Dr. Friedmann asks of us. You will find that through an excess of liberality strongly condemned by their home people, some of these states may permit our countryman to undergo the same searching investigation to which their own are subjected; but this is not necessarily the case. They may require him to take a full five or seven year's course of medical study! They may not permit this unless he becomes a citizen.

The question is so simple—either a man is qualified to pass our regular examinations or he is not. If not, he is not qualified to practice on our citizens; if he is able to pass the legal tests let him have the chance to demonstrate his qualifications. But they say, this man has won eminence by devoting his whole energy to one subject, on which he may be a world authority; at these examinations he will be asked about many other things to which he has given no attention at all, at least not since his student days, and he will be subjected to the mortification of a failure, because he does not recollect all the points of interest (?) on the petrous portion of the temporal bone, which has no more to do with curing consumption that it has with discovering the South Pole.

Precisely; and that is just why he should be compelled to take the examination, for it is what is expected of our own men. It needs a setback to some great world authority to demonstrate the absurdity and injustice of subjecting venerable masters of the art of medicine to tests of first course students topics. John B. Murphy might fail on some bacteriologic point or be unable to describe the manufacture of acetanilide, or give the chemical tests for hyoscine.

By all means, recognize the innate and accepted superiority of the European, but do it by giving him an examination as much more difficult than that exacted of the native, as the European considers himself the superior to the American.

Meanwhile Winnie, when you write for The American try to do so as an American and from the American standpoint; and while about it you might with benefit verify a few of your quotations, for your creed contains a number of attacks upon your fellow citizens of the medical persuasion that are palpably untrue.

THE CLINICAL THERMOMETER.

How often does the average physician think of the care of his thermometer? An article appearing in one of our leading Medical Journals brought this subject forcibly to my mind, so I decided to talk a few minutes with my readers on this subject. Some of us at times fail to appreciate that the layman is gradually becoming educated as to the matter of asepsis, and we are often surprised at remarks made showing that times have changed and that they are noticing how we conduct ourselves in this matter. The clinical thermometer, as we all know, is a means of carrying disease from one patient to another if we are in any way careless in regard to the cleansing of the same. How many times have we all seen physicians place the thermometer in a glass of water and then wipe it off on anything that is at hand? There was a time when this could be done and the patient makes no comment, but that time is passed.

I recall one instance of seeing a physician take a patient's temperature and place the thermometer directly back into his case—the patient in a very nice way said, "Doctor, I will send for a glass of water and a napkin for you,"—this simply goes to show that

our patients are noticing how we conduct ourselves at the bedside—and these things are the ones that count for us or against us in our patient's estimation.

The question arises, how is it best to clean our thermometer after using it at the bedside? A member of solutions have been suggested and a number of cases patented to hold solution in which the instrument can be kept and carried in the doctor's pocket. Some of these are practical but the most of them are not. To my mind the best way to cleanse the thermometer before and after using is to place it into a bath of absolute alcohol, as we all know that is as good a cleansing and disinfectant agent as any and one that we can always carry in our medicine case and have handy at all times.

It is just such small matters as these that count. We are sure to be careful when anything of importance is done, but it is by the little things we do that we are judged.

ABSTRACTS

THE TEACHING OF INSANITY.

F. X. Dercum ,Philadelphia (Journol A. M. A., April 5), is firmly of the opinion that mental diseases should be taught just like other diseases, both didactically and clinically, and that the instruction should be of such a nature that when the student finally enters practice he should be able to recognize the common and every-day forms he is likely to meet and to know when to recommend asylum treatment or otherwise. Theoretical considerations should enter but little in a course on mental diseases in a medical school. As far as possible emphasis should be laid on symptoms, course, prognosis and treatment. The student should be taught the proper use in these cases of the alteratives, glandular extracts and hypnotics or sedatives. That physiologic remedies, like rest, bathing and exercise, should be taught, goes without saying. There is at present, Dercum thinks, a strange and unfortunate tendency to drop the practical study of insanity and its symptoms and to go into psychologic speculation. He refers especially to the Freudian school and the importance laid on psychanalysis by such authorities as Bleuler and some others. There is a grave danger in the proposition of introducing a newer psychnology and neglecting the rational instruction. He says now it is actually proposed to force into the already overcrowded curriculum of the medical student the study of a subject alike barren and theoretical, to take the place of the teaching of internal medicine of which insanity is but a part. He sees no possible good and much evil in these modern tendencies.

DOUBLE BISMUTH MEAL FOR X-RAY DIAGNOSIS.

Haudek advises the use of a bismuth meal six hours before the patient comes for examination. The distribution of this meal is first noted, then a second is given and the stomach watched to note the peristaltic action, size, position and form. By employing this technic Holzknecht has arranged a series of symptom complexes by which he is enabled to diagnose the various types of gastric ulcer, carcinoma in various stages and changes in the stomach produced by adhesions or pressure from without. Tyler (Omaha).

The Status of the Roentgenologist.

The Berlin Congress of the German Roentgen Society, April 14, 1912,

adopted a resolution defining the status o fthe Roentgenologist as follows:

1. Roentgenology is a duly authorized medical specialty, such as are laryngology, ophthalmology, etc.

2. The Roentgenologist is a medical specialist and as such, in accordance with the usual medical custom, he is called in as a medical consultant by the patient or his physician, in order to make or to confirm the diagnosis.

3. The Roentgenologist makes use of Roentgen examinations in addition to the usual clinical examination. He alone decides what particular procedure shall be employed—radiography, radioscopy, orthodiagraphy or teleoroentgenography.

4. All plates, diapositives, tracings, orthodiagrams, and teleoroentgenograms prepared for the diagnosis of the case are the property of the Roentgenologist, just as histological preparations belong to the consulting pathologist. The Roentgenologist will, however, asa matter of courtesy, be always ready, if requested, to place his plates and prints at the disposal of the consulting physician.

5. The supply of negatives or prints to sick clubs and insurance companies is a matter of special arrangement. Moreover, in urgent cases it is the usual custom of the Roentgenologist to place the skiagram at the disposal of the surgeon.

6. The Roentgenologist may, at his discretion, place a copy of the plate at the disposal of the patient, either gratuitously or on payment of a fee. This should, however, only be done in those cases where it will cause no harm or needless anxiety to the patient.

POLIOMYELITIS.

Mr. Neustadter, New York (Journal A. M. A., March 29) after noticing Roemer's observations of paralysis in guinea-pigs, transmissible, and microscopically and otherwise similar to poliomyeltis in man, which had not been confirmed by investigators, reports his own experiments. He placed a cage containing a monkey with poliomyelitis inside of another containing guinea-pigs and two days later found two guinea-pigs similarly paralyzed, which died the same night. There were no microorganisms. Other guinea-pigs were inoculated with an emulsion from the cord or smears from the nasal mucosa of one of these dead guinea-pigs and died within seven days. The postmortem findings are described and included marked hemorrahges and degeneration in the anterior horns of the cord with other lesions. Without venturing to draw definite conclusions from these few experiments, he thinks he is warranted in agreeing with Roemer that the first dead guinea-pig became infected through the virus of the infected monkey mixed with the dust of the cage, and that the infection took place through the nasal mucosa. He also says that these monkeys had been previously experimented with, and that ther antecendent have been traced to the farm from which they came.

THE END RESULT OF EXCISION OF THE ELBOW FOR TUBERCULOSIS.

T. Wingate Todd, M. B., F .R. C. S., Manchester, England (Annuals of Surgery, March, 1913) presents this subject owing to the discrepancy in accounts by various writers of what is ultimately the state of the joint in the cure after operation on tubercular disease of the elbow. Ely in a recent work states, "that in the elbow, the result is probably the same as in the hip, that is, cure by fibrous union or by bony ankylosis. Todd disagrees with him, cites a case, and his summary gives us his views. I. The end results of partial excision of the elbow

joint for the cure of tuberculosis may be perfectly successful and yet a joint cavity may remain. II. The cure of such a case does not necessarily defend on the obliteration of the joint cavity and its displacement by fibrous tissue.

X-Ray Gastro-Intestinal Diagnosis. P. Brown, in the Boston Medical and Surgical Journal, states that the X-Rays help to elucidate many problems in gastro-enterology. The more simple diagnostic problems may relate to the determination of the size, the shape, and the position of the stomach and to that of the position and arrangement of the classical divisions of the intestines. Problems which may be considered as slightly less simple are those having to do with the determination of motility, or other evidence of peristaltic activity . Those more complex in nature are problems dealing with the diagnosis of some localized influences inhibitory to normal function, to-wit: kinks, pressure-points, and other hindrances due to extrinsic comes inhibited, until finally the purulike. Finally there are very complex problems, which are offered by the intrinsic lesions, of a nature either destructive or cicatrizing, which are often malignant and always seriously to be considered.

Operative fixation as a cause of delay in union of fractures, John B. Roberts, Annals of Surgery, April, 1913.

On account of the recent operative activity in the treatment of simple fractures of the long bones, the author presents a case of slow union for consideration and with it a warning. He thinks this is an epidemic of operative proceedure such as was experienced in oophorectomy for sclerotic ovary, nephrorrhaphy for all loose kidneys, thyroidectomy for all enlarged thyroids and the more recent tonsillectomy craze. Besides the delayed union one must remember also that many cases have died following the operation which seemed unnecessary. He reviews a case of fracture of the tibia with a double fracture of the fibula. First the fractures were set unsuccessfully and two weeks later a 4-in. Lane plate was inserted on tibia with perfect opposition; ten weeks later had mobility and for six weeks gave lime, salts and tonics. The Lane plate was then removed and bones were found in good apposition. Thirty-three weeks after fracture there was some slight movement but patient can use the foot. Looking carefully for an etiology he could find none. Health was good, some worry, no interposed tissue, bone healtthful, no luetic history. He then quotes various operators whose opinions vary as to the advisability of operating. His conclusions are: wireing and plating must not be done indiscriminately. They have their place in surgery and the laity should know a man must use his judgment.

Good results have been and can be secured without operation.

Operations is dangerous for novices in aseptic surgery or where asepsis is not good. t

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THE ARREST OF HEMORRHAGE FROM BONE BY PLUGGING WITH SOFT TISSUES.

George Tully Vaughan, M. D., Washington (Annals of Surgery, March, 1913).

A small fragment of soft tissue either muscle or fascia, is pressed against the bleeding surface of the bone. If it does not adhere it is pressed into the vascular openings of the bone with a knife handle, dissector or chisel. The advantages of this method are that the material is always present and that it does not act as a foreign body.

THE DOCTOR'S LIBRARY

THE LABYRINTH: An Aid to the Study of Inflammations of the Middle Ear. By Alfred Braun, M. D., and Isidore Friesner, M. D. With 50 Figures in the Text and 34 Half-tone Plates. Pages 250. Cloth. Rebman Company, Herald Square Building, New York City.

The number of books on this subject is so small that this work is a welcome addition to medical literature. This subject at the present time occupies the center of interest in the otological world and such a resume of all that is known regarding the labyrinth has been needed for some time. All physicians should become more familiar with the basic truths regarding labyrinthine disease which have thus far been established beyond doubt.

The authors first take up the anatomy and physiology of the labyrinth in detail, then they give a thorough presentation of methods of examination. The symptoms and diagnosis of labyrinthitis are clearly discussed. The methods of treatment, both operative and non-operative are given. The illustrations are excellent and add much to the value of the volume.

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"SOLIDIFIED CARBON - DIOXIDE" by Ralph Bernstein, M. D., of Philadelphia, Pa. Fully illustrated. 95 pages. Frank S. Betz Co., Publishers, Hammond, Ind.

Much has been written lately on the use of "Solidified Carbon-Dixide" in the treatment of cutaneous lesions but there has been but little reference to it in our literature.

This work by Dr. Ralph Bernstein who is an authority on this subject and who has probably had more experience in its use than any other known physician is a welcome addition to our library.

It takes up the origin of Carbon Dioxide as a therapeutic measure, the explanation of its action upon the skin, its superiority over other methods of procedure, the method of solidifying Carbon Dioxide, and then takes up the individual skin diseases, giving the method of treatment and fully illustrating the different diseases. Spelial referenc is given to the treatment of Agnioma, Epithelioma and Lupus Erythematosus, conditions and diseases that have long been the bugbear of the physician. I know of no other work of its kind and I take pleasure in recommending it to those interested in the subject.

♣ ♣ ♣

"HOW TO COLLECT A DOCTOR BILL." By Frank P. Davis, M. D. 98 Pages. Cloth Bound. Price $1.00. Physicians Drug News, Publishers, Newark, N. J.

Many, in fact all physicians will find in this small volume many helpful hints as to the manner and means of collecting their bills. The chapters on the "Attitude Toward Debtors" and "The Proper Time to Collect" are filled with good advice, many of the practical points given are often apt to be forgotten by the busy practitioner.

It is a work of ready reference for all physicians in all states, for it gives the "Statutes of Limitations"—of accounts, notes, judgments, etc., before the same become outlawed in the different states, and it also gives the exemption laws and their application—and abstracts from the exemption laws of all states. A more useful reference work of this kind has not come to our notice before for a long time.

Wisconsin Medical Recorder

A Monthly Journal of Medicine and Surgery, devoted to the best interests of the profession

VOL. XVI JUNE, 1913 No. 6

DISEASE and its CAUSES

G. G. BURDICK, M. D. and THEODORE C. F. ABEL, M. D., Chicago

What is disease? This might seem a needless question in the present enlightened state of medical science. It would appear as if most of the earlier views concerning health and disease, life and death, have long since given way to more scientific conceptions. The ancient idea of disease as a tangible entity, as something which enters the body from without, as an enemy which can be fought and conquered by the body or which vice versa, may prove victor in the conflict, still holds sway to a large extent among the laity. Even the physician, or at least the student, must continually strive to realize that disease is not a thing but a process—a succession of events, perhaps normal in themselves, but leading to abnormal results.

We are taught as one of the fundamental rules of medicine that disease is a disturbance of function or structure or both. Whether it is possible for function to be disturbed without any alterations in structure, or on the other hand, whether there can be alterations in structure without disturbance of function, has been discussed back and forth, with seemingly little result . A little application of ordinary common sense reasoning may help here.

Let us keep up our illustration of the body as a machine—a self-repairing machine—capable of various manifestations of energy by means of its delicate mechanism. For some reason, this machine has got out of order—some of its functions are not being properly performed. We say that a condition of disease exists. What is to be done?

If the body were an inanimate machine, like a locomotive, or a watch, if you please, and failed to perform its functions properly, it would be difficult to make any one believe that this failure was not due to some structural defect. And on the other hand, if something breaks on the locomtoive, or we drop the watch, we know without any argument that disturbance in function is going to result.

But in these machines it is an easy matter for anyone understanding their construction to take them to pieces, find the defective or broken part, and by repairing it or replacing it by a new one, to restore the impaired function as good as before. This can obviously not be done with the body. But, as has already been stated, the body has the power of repairing itself, and this healing power of nature has pulled many a doctor out of a difficult predicament and has upset many a prognosis.

It is true, in the human body the healing power is not so highly developed as in the lower animals. A lost arm or leg does not regenerate as in some crustaceans, neither can a human being be cut in two, and each part de-

velop into a complete individual, as is claimed for some invertebrates. But the power to repair reasonable defects in structure exists in the human body to an extent rarely realized, and which we have no doubt is capable of still further development.

When we take into consideration the fact that the body is really a compound being instead of a single individual—composed of millions of individual cells, each one capable of independent existence under the proper environment, and also capable of unlimited self-production—we must admit that the provisions for repair are ample. Why they should sometimes succeed and at other times fail is a problem which medical science has not yet solved.

That the mind influences these processes to a great extent is being realized more and more. Far be it from us to preach Christian Science or delve into the realm of metaphysis, but every physician and every nurse is familiar with numerous instances pertaining to the same.

Let us approach the problem in a rational manner. We know that the body does not generate energy. It takes in potential energy in the form of food and gives out just as much as it receives, less the portion stored up for future use. The internal processes, the voluntary work and the heat given off will account for all the kinetic energy produced from the potential. By all the various procsses necessary to accomplish this transformation of energy—the digestion, absorption and assimlation of the food products, the elimination of waste, the circulation of the common carrier of the body or the blood stream, the supplying of oxygen and the numerous other processes of life, all require some overseeing or regulation. Though they are automatic processes so far as our consciousness is concerned, yet the central office or exchange, or seat of government, or whatver we may choose to call it, is in close relation with our conscious processes. The sympathetic nervous system which controls the various automatic body functions is closely connected with the central nervous system which governs our voluntary actions.

We hope not to be accused of soaring into the realms of fancy when we suggest that it is not inconceivable when that the connection between the central and sympathetic nervous systems could be utilized for this purpose. We may have servants that do their work perfectly and practically require no over-seeing, yet it would be incongruous if there was no provision made by which we could oversee and regulate their work when necessary.

Disease, then, is defective functioning of the human mechanism, due to some defect in structure. Usually this defect can be repaired, and is repaired, automatically, provided that nature is not handicapped too seriously in her efforts of interference, medical or otherwise or that for some reason the repairative or healing power has been weakened.

What causes the defect in structure? Leaving out of consideration for the time being hereditary defects, which could be avoided as well as not by preventing marriage of the unfit, we may broadly class the causes of these structural defects or causes of disease, under two great divisions—external and internal causes. As a matter of fact, all causes of disease are external. The disorders of metabolism, or auto-intoxication, which are usually accepted as internal causes, are primarily due to external factors, such as improper food and incorrect living. But letting the accepted division stand for the time being, we may again sub-divide the external causes into mechanical injury or traumatism, chemical injury or

poisoning, and parasitic injury or infections.

Against all of these we have singularly efficient methods of defense and repair. A wound will heal, a broken bone will knit, poisons are destroyed by the body fluids or eliminated by the excretory organs, infection is kept out by the skin and mucous membranes, and if these be penetrated, the invaders are destroyed by the leucocytes and other cells of the body, and the various protective substances in the blood serum. Only to an everwhelming injury or infection will the protective powers of the body succumb, and then more particularly if the central station, the brain or spinal cord, be seriously injured or destroyed, thus removing the control or governing station, and preventing coordinated action of all defensive powers.

Another condition, only too prevalent, has a great tendency to weaken the various defensive provisions of the body and allow external causes of disease to produce disturbances, which would not occur in a perfectly normal system. This condition consists in the accumulation of poisonous waste products, derived from excessive protein of food. Such a tax is put on the system by the labor of removing or attempting to remove these poisons, that external factors find the body totally unprepared against their invasion, and easily gain a foothold in what would otherwise be well-guarded territory.

It is as if a country during the throes of a civil war or a rebellion, to quell which all its powers and resources are necessary, were suddenly attacked by an outside enemy. It would be no trouble for the latter to break down the unguarded defenses and invade the country, and having entered, do untold damage before a successful resistance could be waged.

It is then the disorders of metabolism, the internal dissensions, that we must first quell, in order that the body defenses may be able to properly perform their function of guarding the system against outside enemies, who, when this is accomplished, lose most of their terrors and become harmless.

CHRONIC ANTERIOR URETHRITIS

By NELSON F. McCLINTON
Chicago, Illinois

Last month it was attempted to demonstrate a method whereby the seat of lesion or lesions in the urethral tract could be located and emphasis made on the necessity of making this localization before beginning treatment.

The treatmnt of chronic anterior urethritis will now be considered.

The discharge may be free, the reason for which will be shown later, and cases will be seen having nothing but shreds in the first glass, these not being sufficient to produce a discharge. The persistence of the urethritis will be due to any one of the following: Infection of Littres glands, follicles, lacunae, Cowper's glands whose ducts open into the anterior urethra about ¾ of an inch in front of the bulbomembraneous junction.

With any of the above conditions, of a necessity there follows either a soft infiltration or a hard infiltration.

If the gonococci are numerous, instrumentation had better be delayed until treatment has been given sufficient time to cause their disappearance or at least reduce their number as much as possible.

Provided this has been accomplished, a number 24 F bougie a boule should be passed to the bulb. Except in rare

cases a number less than 24 F should not be used but larger will have to be used frequently depending upon the size of the urethra. In passing this bougie any constrictions or points or tenderness should be noted. Very frequently the narrowing will be at the meatus and it will be impossible to pass a bougie anywhere near No. 24. With a small meatus a meatotomy should be done, viz. a meatus that will not admit No. 24 F. Often this procedure alone stops the discharge, it is recognized that a small meatus is a very frequent factor in causing the persistence of the discharge. If the bougie passes to the bulb, then pass a steel sound the same size and palpate the urethra upon the sound. If any shot like nodules are felt they are infiltrated urethral glands due to occlusion of ducts or a peri infiltration.

To examine Cowper's glands insert the index finger into the rectum, then with thumb on perinaeum the glands can be examined, normally they cannot be felt, however they can be infected and still not be enlarged, but palpation between finger and thumb will elicit tenderness.

A method of learning whether the glands of Cowper are producing the discharge is here given.

Wash out the anterior urethra until clear, massage the glands as stated, between thumb and finger, again wash out urethra, if cloudy or shreddy it is reasonable to suppose these glands are either the source or one of the sources of the persisting infection.

It has been stated there are two kinds of filtration, a soft and hard infiltration.

In soft infiltrations the discharge may be profuse for the reason infiltrations of this character are found in early stages of the disease.

The discharge from hard infiltrations is gleety as this is a later stage.

It can be safely said that practically all cases of chronic anterior urethritis require dilating whether narrowing is present or not. The effect of the dilitation is to cause an absorption of the infiltration, constrictions are removed and normal calibre of urethra restored. Another benefit from dilating is the emptying of occluded ducts.

Whenever a dilator is inserted, if evidences of peri-urethal inflammation are present, the urethra should be gently massaged on the dilator. Dilitation should be done twice a week. Steel sounds can be used although dilators are preferable.

Kollman's sound is excellent where dilitation can be commenced at 23 F and Oberlander's when it is necessary to commence at 16 F. Dilitation should be done very carefully and slowly, the increase should not be over one or two millimeters at each treatment. If any pain or a feeling of tension, dilitation must be discontinued for this treatment. If a constriction is present that cannot be removed by dilating, it should be cut by an internal urethrotomy.

After each treatment the urethra should be irrigated either with hydrostatic pressure or by passing a catheter to the bulb and using a syringe. The best solution to use is silver nitrate 1:5000 to 1:2000.

If much reaction, use a milder solution, gradually increasing strength of solution. If washings from urethra are fine and dusty appearing, use the stronger solutions, if clear, excepting for flocculent shreds, use milder solutions. Between office treatments patient can be given a mild astringent solution to use with a hand syringe three times a day. It is not necessary to add that the patient should avoid drinking, sexual excitement and to live as hygenically as possible.

If anaemic or debilitated, treatment should be directed accordingly. Noth-

ing has been said regarding the use of the urethroscope which is a valuable aid in treating this chronic condition, generally it comes into use after the above outlined treatment has been given a good trial without success. With the urethroscope can be seen areas of inflammation, occluded or suppurated glands, granular patches, ulcerations or papillomatous growths which can be treated by direct applications, electrolysis or even the knife.

MATERNITAS

By CHARLES E. PADDOCK, M. D., Chicago, Ill

(Continued from Page 148 May Recorder

In lifting a child from the crib the spine must be supported. To do this, grasp the clothing just below the feet with one hand and slip the other underneath the shoulders and head. Never attempt to lift it by the arms or hands.

The Bath.—Until the navel is healed the infant should not be given a full bath; its face, head and hands be washed with warm water and pure soap; avoid getting soap into the eyes. Rub the body gently with sweet oil or benzoated lard; remove the excess of oil with a soft towl. If, however, the oil seems to irritate the skin, as it may do in very warm weather, a sponge bath may be substitutd. After the cord has separated and the navel has healed, the child may be given a full bath. The temperature of the water for the full bath for the first month, should be from 98 degrees to 100 degrees F.; after the first month, and until the sixth month, the temperature should be gradually lowered to 95 degrees, and from this time to the end of the second year it should reach 90 degrees. When the baby is two or three months old, a little splash of cold water, directly from the tap, can be dashed over the head, chest and shoulders; and this treatment may be increased as fast as it becomes agreeable to the infant. You must not, however, do anything to cause the baby to fear the bath, consequently the amount of cold showering should depend much upon the effect it has upon the infant.

A child will learn to love the bath, which is just as necessary for it as food or sleep. After the soap bath, rinse the body with warm clean water to remove any excess of suds. Then after the cold shower take the babe across the lap, wrap it in a bath apron made of soft heavy turkish toweling, and rub it perfectly dry. Special attention should be paid to the ears, palms, axillae and the groins; and in the girls, care should be taken not to injure the external genitals. Follow this by a massage of the whole body, with light taps or spankings, to bring the skin into a healthy glow. It is surprising how much of this beating, or spanking, babies can be taught to bear.

Great care must be taken of the baby's eyes for several weeks after birth. Every morning at the bath the lids should be washed with a clean, soft, linen cloth, dipped in lukewarm boric acid solution. Then by means of a medicine dropper the eyes themselves should be irrigated with some of the same solution which has not become contaminated by passing the linen cloth back into it after washing the lids. Always remember to have the hands clean before treating the baby's eyes in any way. If pus appears in the eyes your physician should at once be notified.

Twice a day at least, the baby's mouth should be cleaned. To do this make a swab by twisting some absorbent cotton upon a tooth pick, and dipping it in a boracic acid solution. The usual method of using the finger wrap-

ped with cotton, gauze or linen, is too apt to injure the delicate tissues.

The nostrils should be cleaned by means of absorbent cotton wrapped on the end of a tooth pick dipped in boric acid solution or a liquid alboline.

The bath should be given at a regular time every day; the time chosen being at least one hour after nursing. Because of the soothing effect of the bath it should, however, be preferably given just preceding a feeding and then after the feeding the infant will immediately go to sleep.

Many infants cannot endure the cold spray or the dash of cold water as recommended and may become very blue. In such a case the water will have to be either tepid or quite warm. Should, however, in any case the baby become blue from the bath it must be given a vigorous rubbing and wrapped up in warm blankets.

Many mothers prefer themselves to bathe their child and this is commendable. Certainly unless the baby has an experienced educated nurse, the mother should do so. It is a matter for great thoroughness. All the little folds in the arm pits, groins, buttocks, etc., must be cleaned. If soap and water does not accomplish it, a little liquid alboline will.

For the heat rashes sterate of zinc powder is far better as a dusting powder than the usual perfumed powders which clog the pores of the skin. On very warm days the baby can be left partly undressed at different times during the day. Such treatment will prevent the rash and if already present will aid in the cure of it. Boric acid powder is liable to irritate the skin of a baby and should not be used.

In the summer a sponge bath when the babe is undressed at night will often be the means of it resting better. A wash cloth made of cotton stockinet is very useful in applying the soap. Flannel or diaper cloth may also be used. A fine quality sponge readily removes the soap from the ears and other places. The best bath apron is absorbent and non-shrinkable; it is made of a soft knit cotton back material, heavily fleeced with soft nap on the face.

Most soaps are irritating to the tender skin of a new-born infant. Castile soap is as good as any, if you get the best, but there are many counterfeits. An excellent soap for the bath is either a domestic soap "Pond's Extract," or a German make, "Basis Seife," both containing a large amount of oil.

If the skin is very sensitive and chaps easily, discontinue the use of soap for a few days, and give a bran or salt bath.

The Bowels.—For the first few days the infant passes a tarry material called meconium. This gradually changes to brown and then as food is taken the usual yellow begins to appear. By the end of the first week the movements should be a canary yellow, the odor that of sour milk. The stools should not contain any mucus or undigested curds; foul smelling, greenish and frothy stools mean intestinal indigestion. Two movements a day is about normal; more than four should receive medical attention. The observing mother soon becomes familiar with the normal character of the stools and is able to determine variations and describe them to her physician.

It is surprising how soon the infant can be taught regular habits in emptying the bladder and bowels, and it is not unusual to see one well trained in this respect by the eighth week. All that is necessary to teach this to the average infant is patience on the part of the mother or nurse. At a certain time each day the napkin is removed, and the child is held over a chamber; the time selected corresponding with the usual time for the bowels to move. In beginning the practice a small

gluten suppository or a little water put into the rectum will assist in regulating the habit.

If the bowels move of themselves once a day and the passage is small and somewhat constipated the mother must not be alarmed, that is, if the child is perfectly comfortable. This condition usually is corrected as the food becomes stronger. If the child is disturbed by constipation, an injection of a tablespoonful of sweet oil may be given, or half a teaspoonful of glycerine in one tablespoonful of water. Sometimes a gluten suppository, infant size, to be obtained at the druggist's, may be inserted in the rectum.

A bulb syringe with a smooth hard rubber tip should be used for the injection or a soft rubber catheter, No. 12, to which is attached a glass funnel. Not more than two ounces should be injected at a time. The tip should be lubricated with oil or vaseline and inserted by sight in order not to do injury.

Constipation can often be overcome by massaging the abdomen. This should be done when the stomach is empty; beginning low down on the right side just beyond the median line, carefully rubbing with a rotary motion, with the tips of the fingers slowly working up to the ribs, and then across over the transverse colon to the other side, and down the left side to the groin. The time consumed in makin this circuit should be about five minutes. In obstinate cases this method gives surprisingly good results.

Often the bowel movements are irritating and the anal region becomes quite red and inflamed. This is generally corrected by improving the intestinal digestion. In the meantime something must be done to relieve the inflammation. No water should be used in this region and the buttocks should be cleansed with olive oil, any excess of oil being removed by rubbing very gently with soft linen. A slight redness or chafing should be treated by drying the parts very gently and applying a small amount of stearate of zinc powder. Any serious erosion or inflammation should be seen by a physician.

The redness may sometimes be due to infrequent changing of the soiled napkin, or to using napkins which have been improperly laundered.

Most infants are troubled more or less with colic, usually the greatest sufferers from it being bottle-fed babies. It is a symptom of indigestion, but may come from other causes, such as constipation, cold feet, and hands. A colicky baby completely upsets the household and disturbs the mother, who needs all the rest and sleep she can get. If the cause be constipation or acute indigestion, a dose of castor oil and a flushing of the bowel with a warm salt solution will usually suffice. Milder cases may often be relieved by drinking a little warm water or a teaspoonful of warm peppermint water, or a tablespoonful of warm water in which a soda-mint tablet has been dissolved. A hot water bag or hot flannel applied to the abdomen will sometimes answer.

The feet, hands and body of a colicky baby should be kept warm. If repeated colics are due to constipation, the mother can regulate the infant's bowels by taking a laxative herself every day. Often the trouble is due to the mother's indiscretions in eating, and to her not keeping regular hours. If colic continues and the baby shows signs of indigestion, a physician should be consulted. Don't give paregoric, hot whisky or brandy as is too frequently done. The "soothing syrups" are not necessary and are often positively injurious; it is said that many or all of them contain opiates. Whenever the child becomes so restless that a resort

to something of the kind is under consideration the physician should be consulted. Many articles of food which normally produce no discomfort to the mother when eaten will do so to the nursing baby. It is the popular opinion that tomatoes should not be eaten by a mother who is nursing her child. It is possible that the dressing put upon the tomatoes is the cause of the trouble. Lettuce and strawberries eaten by the mother are also looked upon as injurious to the nursing baby. The mother will have to determine this by exclusion. Should the baby have a colic which can be directly traced to some article of food, then such food must be eliminated from her diet.

Every mother should learn to give her baby a high colonic flushing. The apparatus required is a fountain syringe and tube to which is attached a rubber catheter. The bag being filled with boiled water is hung about two feet above the bed. The child is now placed either uopn its back or left side with the hips elevated. The catheter well oiled is inserted into the rectum. As the water flows the catheter is gradually advanced until it has passed the full length. Often the catheter will curl upon itself and will require repeated attempts to cause it to advance into the bowel. The colon fills easily and a pint or more of the water will flow in before any passes out along the tube. By watching the bag one can tell how much is being introduced. The washing can be continued until a gallon or more of solution has been used.

Irrigation of the colon is very useful in severe colics resulting from indigestion. It removes the undigested food and the products of decomposition. Unless ordered no medication should be used in the water other than common salt, a teaspoonful of salt to the pint of water. The temperature of the water when the child has no fever should be about 90 to 95 degrees F. Under ordinary care these irrigations are free from danger and are a great help in the treatment of infantile intestinal diseases.

(To be Continued.)

TREATMENT of PUERPERAL INFECTIONS

By FRANK W. VAK KIRK, M. D.
Janesville, Wis.

No subject is of more interest to the general practitioner than that of the treatment of a case of puerperal infection for there is no class of cases that cause as much comment in a community as a death following child-birth.

In taking up this subject I will speak briefly on the prophylactic treatment, the etiology and the pathology.

The prophylactic treatment should begin at the time a practitioner makes the diagnosis of pregnancy and from this time until term there is really no indication for any further examination to be made unless some complication arises.

In all examinations of pregnant women I believe that rubber gloves should be worn. After a thorough cleansing of the hands the use of sterile gloves in all these examinations excludes all possibility of carrying any infection into the vagina.

I feel that there is no hand solution that we use that can make us confident as to this point.

At the time of delivery at term or in a case of inevitable abortion, the parts should be shaved and thoroughly cleansed and if there is any question of a fecal accumulation in the rectum an enema should be given.

The presence of a vaginal discharge or if one is in doubt as to whether repeated examinations have been made before the patient came under his care, a sterile vaginal douche should be given: all these measures tend to lessen the possibility of an infection.

As to the etiology, the bacterial examination of the discharge has given a very great variety of organisms as the different causes of the infection. The most frequent organisms found are the streptococcus, the gonococcus, the colon bacillus and the staphlococcus. A recent article in one of the leading medical journals reviewed the history of puerperal infection in the larger hospitals of Europe and the United States before the aseptic era and the death rate given is appalling.

We have come to look on puerperal infection in the majority of cases as a hand infection so all means taken to prevent the same is of especial moment not only to the patient but to the attending physician.

In the treament to be outlined the variety of organisms found in the discharge has not influenced the general treatment used in any way.

The pathology of these cases, as we we all know is varied, from an infection of a slight tear of the perineum to the involvement of the entire generative tract in the inflamamtory process and in many cases extending to the parametrium and the peritoneum.

At other times due to the virulence of the infection there are no local lesions to be found but a rapidly fatal septicaemia is present.

The pathologoy of the different lesions cannot be taken up at this time.

The treatment to be outlined here is based on a series of 70 cases. I had the privilege of studying while assistant to Dr. T. J. Watkins of Chicago.

These patients were all referred from some other physician or entered the different hospitals on the regular servic, in consequence, reliance could not always be placed on the statement of how much instrumental manipulation had been done before the patient entered the hospital, particularly in the cases of infection following an abortion or miscarriage.

Fifty cases of the series followed an abortion or miscarriage and the remaining 20 were infections following term pregnancies.

On entering the hospital a careful complete history was taken and a thorough examination made, in order to determine how we were to proceed as to treatment.

A blood examination was always made on entering and every few days while the patient was under our care. A great variation was found in the leucocyte count, this count was often of aid in maging a prognosis. In the presence of a high temperature and an exudate a high leucocyte count was considered more favorable than a low one, as it showed that the body was doing all in its power to overcome the infection and establish an immunity. One case was of interest in that on entering the hospital the patient had a high fever, a large pelvic exudate and a profuse purulent vaginal dischage, the leucocyte count was low. No improvement was noted until the leucocyte count began to increase when it was rapid and the case went on to a complete recovery.

The examination of the vaginal discharge was not done as a routine measure as the result in the cases examined was not always satisfactory and we did not feel that the finding of any special organisms would have any influence on the treatment to be employed.

Our only indication for exploring the uterus was the presene of bleeding or a foul discharge as we felt sure that if there were any retained membranes a foul discharge would soon appear and that it would be safer to wait than

to do any needless meddling without one or the other of the above mentioned symptoms.

The presence of an exudate or a high fever or both would call for supportive treatment.

In the majority of cases when there was a suspicion of there being retained products of conception even those with a high temperature, bleeding and a foul discharge, the uterus and vagina were packel with sterile gauze, and this was allowed to remain for from 24 to 48 hours. Often before this time the gauze and the retained tissue were expelled into the vagina. In a number of cases of inevitable abortion the uterus and vagina had to be packed a second time in order to get sufficient dilatation of the cervix so that the finger on the placenta forceps could be introduced. In a number of cases where all the tissue was expelled the uterine cavity was not even explored by the finger.

We found that in the majority of cases the entire cavity of the uterus could be reached by the finger particularly if some pressure was exerted on the fundus, however if instrumental interference was found necessary to completely empty the uterus, the placenta forceps were used in preference to the curette as we considered it less liable to do any harm.

The objection to the use of the curette is the danger of dislodging thrombi formed in the uterine sinuses and thus the danger of a further extention of the infection. Another objection to the curette is the danger of perforating the puerperal uterus. When the use of the curette is deemed necessary the largest one that can be easily introduced shuold be used. All intrauterine manipulation was avoided whenever possible for we felt that it favored an extention of the infection and the formation of a pelvic exudate.

After the exploration of the uterine cavity irrespective as to whether retained tissue was present or not, no irrigation was used or the uterine cavity was never packed with iodoform gauze. However at times the uterine cavity was wiped out with sterile gauze. The irrigations were always looked upon as dangerous and the packing could do nothing but aid in the retention of any secretion present. With the cervix well dilated there is no indication for gauze or tube damage.

At times when there seemed to be any obstruction to the flow of the discharge, the head of the bed was raised and this seemd to overcome it.

In all cases much attention was paid to the building up of the physiologic resistance of the patient. In 34 cases this was the only treatment employed and even in the cases where it was necessary to explore or pack the uterus this line of treatment was begun at once. The object sought to be obtained by this treatment was to give the patient 1st absolute rest in bed, 2nd a light nourishing diet, 3rd relief from pain, 4th sleep, 5th to stimulate elimination and 6th to supply plenty of fresh air and sunshine.

In all the different treatments recommended for the care of puerperal infection none has given such good results as that which tends to build up the physiologic resistance of the patient—all the cases in this series were placed on this line of treatment and if improvement was not noted other means were resorted to. In only 10 cases was a vaginal section necessary, and the abdomen was opened but four times.

All these cases were placed in as cheerful surroundings as possible, the room selected was one with lots of sunshine—the diet consisted principally of milk, eggs and beef juice. For pain codeine and morphine were given in sufficient amounts to control the same, for when there was no pain present the

patient generally rested well. Sleep is absolutely necessary in these cases and if for any reason a patient did not obtain natural sleey, drugs were resorted to. Fluids were relied upon to stimulate elimination and if two quarts of liquids were not taken daily by the mouth, normal salt solutions were given per rectum in sufficient quantities to make up the amount. We found that giving the salines in quantities of 6 or 8 ounces at a time caused less irritation to the rectum than by giving it by the drop method. The presence of the tube in the rectum often caused it to become irirtated and the patient was unable to retain the salines. As we considered it absolutely necessary for the body to receive the liquids we chose the method which caused the least irritation.

When necessary a daily enema was given to move the bowels.

In giving the outline of this treatment it will be noted that no mention has been made of the use of stimulants, strychnine, whiskey, etc. It was our rule to use stimulants and all kinds of medication as sparingly as possible, our idea being to do nothng to lower the resistance of the patient in any way but to do everything in our power to increase the physiologic resistance of the patient.

The use of vaccines was not employed in the treatment of any of these cases.

In this series of cases there were seven deaths, six due to a general suppurative peritonitis that the patient was suffering from on entering the hospital and one due to a general suppurative peritonitis following the opening of a pelvic abscess. All these cases were desperately ill on entering the hospital, and they were considered hopeless from the first—two dying within 24 hours and four within a week.

The most frequent complication noted was Pneumonia ()—other complications met were Ilio-fsoas abscess (1) Phlebitis (2) Intestinal Obstruction (1) Acute nephritis (2) none of these complications were present in the fatal cases.

There are a number of points of interest in this series—33 patients ran a temperature of 103° or above—21 of these patients had a pelvic exudate—7 others were the fatal cases due to the general suppurative peritonitis and in the other five, one of the complications mentioned was present. 17 or half of the cases treated by supportive measures only, developed a pelvic exudate, but as soon as an immunity was produced the exudate was gradually entirely absorbed—except in three cases where a slight thickening remained when patient left the hospital.

The exudate was present in a majority of cases when the patient entered the hospital, whether it was due to previous intrauterine treatment, was not often to be determined, as many statements made by patients suffering from a miscarriage or an abortion are unreliable.

The uterus was explored for retained tissue in 19 cases and packed with gauze in 13 cases in order to stimulate contractions to empty the same and to get better dilitation of the cervix.

Of the seven fatal cases the uterus was explored in only one of them—there being no indication for any interference in the other six.

In looknig over the available literature I find that a great many of the writers on the subject of the treatment of puerperal infection still cling to the theory of uterine irrigation and the packing of the uterus with medicated gauze, even when it is known to be empty.

I have already given you my views in regard to that line of treatment.

Some of the French writers (Barsony) advocate the intra-venous injection of bichloride of mercury, stating that "this is the best and most rapid

method of combating the germs which cause the infection.'' This however is a method that I do not believe will ever be used much by the general practitioners and is one of questionable value—as there is always some danger in introducing drugs in this manner.

The result of the experimental work with blood cultures, to determine the cause of the infection has not proven satisfactory.

Polak and Panzer of the American writers favor the conservative form of treatment as outlined in this paper.

In regard to the vaccine treatment, there is still a variety of opinion as to its efficiency. In a recent article by Williams, Aagin and Newell they state in conclusion that 'as the ordinary localized puerperal infection irrespective of the offending bacteria tend to a spontaneous cure the field of vaccine therapy is practically limited to acute general infections when they unfortunately appear to be of litle value and the most that can be said from the reports so far available is that their employment does no harm.

On the other hand Cushing of Boston reports where good results have been obtained by the use of autogenous vaccines. Where well equipped laboratories are at hand these autogenous vaccines can be readily produced, however more experiental work will have to be done before their value is assured.

Recent articles have been published by Vineburg and Seeligmann of New York on the successful operative treatment of thrombosed pelvic veins, encountered in this class of cases, in our series the question of operation for this condition never arose.

In conclusion I will state that from the study of this subject we were convinced that each case is a law unto itself as regard its treatment that all local treatment other than that called for by definite symptoms is useless, and in the majority of cases harmful. That better results can be obtained by following out the conservative form of treatment, doing all in our power to build up the physiologic resistance of the patient, thereby helping the system to more quickly develop an immunity to the infection present, for we know that as soon as an immunity is developed the temperature and the leucocyte count rapidly returns to normal and the exudate which is present in so many cases is quickly absorbed, thus allowing the patient to go on to a rapid complete recovery.

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ERYSIPELAS.

By R. B. Hopkins, M. D., Milton, Delaware.

From what one can glean from text books concerning the treatment of erysipelas is not very encouraging. It is indeed a disease to be dreaded especially when attacking the head or face. For the last twenty years I have been using a remedy known to all, and that is the Tincture Ferric Chlor. I use it externally—painting the diseased area twice or three times in the twenty-four hours—allowing it to thoroughly dry—after which I cover the surface with gauze 1-2000 or 4000 bichor. solution. A starch poultice at night mixed with the bichlor. solution has a soothing effect and excludes the air. In three or four days the disease usually yields to treatment. I have never known this to fail in cases seen early, in fact have never seen a case go to the stage of suppuration. Internal medication of course should not be neglected—purgatives early—followed by tonics. I think calcium sulphide or calcium iodized has a beneficial effect at least I use them in conjunction with the external treatment.

INTERNAL SECRETIONS

By F. B. WELCH, M. D.
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"Internal secretions are the specific activity of an organ or tissue which pass through the blood to other organs or tissues, in which they exert a stimulating or inhibiting influence." Thereby regulating the activity of the cells. Internal secretions unlike the external secretions, are not formed exclusively in the epithelial cells.

Little is known of their chemistry. They do not furnish nutritive materal They are stimulatory substances which exert their action when present in small quantity.

The directive influence which the internal secretions exercise on the phenomena of growth and development can no longer be overlooked in the light that various pathologic manifestations have thrown on the subject. Cretinism and myxedema, giantism and acromegly, are unquestionably associated with preverted functions of the ductless glands. Early castration and ovarectomy demonstrate the important part that the internal secretions play in the development of the sexual characteristics. Upon the proper secretion of the ductless glands depends the normal physiological action of all the organs of the body. There seems to be intimate correlation of the organs of internal secretion but the real significance of the essential interrelationship remains as obscure as it is probable. To what extent the ductless glands are under the dominance of the nervous system in the elaboration of their potent products is not known. Animal experiments seem to prove that there is a secretory innervation of the adrenals.

The adrenals produce a powerful substance which in undue amounts acts as a violent poison and in smaller amounts exerts a striking influence on the blood pressure. This blood raising constituent is a well known chemical substance. creptaline, basic in character, and rapidly undergoes oxidation. It is now produced synthetically. It is a vasoconstrictor and produces a sudden rise in blood pressure. This is caused by the accelerated and more energetic heart action and a contraction of the smaller arteries and arterioles.

When injected in sufficient amounts it will produce dextrose in the urine. This specific action shows plainly that it has a stimulating action on gland cells probably due to a stimulation of the sympathetic nerves. Experiments seem to suggest that this produced glycosuria is due to a stimulation of the sympathetic nerves leading to the liver or other store houses of carbohydrates and causing these organs to throw out their stored up material in the form of dextrose. The gland may regulate the mobilization of the sugar in the body. Adrenalin has little if any constricting action upon the vessels of the brain, lungs or heart. This may be due to the fact that these important vascular areas are but little controlled by the vasoconstrictor nerves. In therapy the drug is used by hypodermic as a heart stimulant and as a vaso constrictor.

Applied locally it is a useful agent to control hemorrhage. It has been advocated as a controling agent in internal hemorrhage. But when we consider the increased heart action and increased arterial pressure the question arises do not these factors offset its vaso constricting effect? It shall never be given in hemorrhage of the brain or lung. In the paroxysms of asthma the hypodermic administration of the drug produces almost immediate relief. Clinical studies seem to indicate that one of the functions of the adrenal glands is in counteracting pathological processes or products which tend to produce an abnormal broncho constriction. It is certainly the best

drug we possess to control the distressing symptoms of asthma.

Pituritrin is obtained from the posterior or infundibular portion of the pituitary body. When injected into a vein it causes a rise of blood pressure very similar to that produced by adrenalin save that its effect is more gradual in its onset and very much more prolonged in its maintenance this rise of blood pressure being due to the constriction of the peripheral blood vessels which, like that caused by adrenalin depends upon an effect exercised upon the muscular coats of these vessels rather than through any influence upon the vasomotor center. Rise of blood pressure is probably responsible to a considerable degree for the slowing of the pulse which is reduced by its use.

It causes a marked increase in the urinary flow and has a marked action upon the uterine muscle in pregnancy. It has no effect upon the nervous system and produces no reaction at the site of injection. It stimulates the mammary glands in their secretion of milk.

Clinical studies indicate that the drug is stimulent to uterine inertia due to exhaustion, and that its administration is beneficial rather than harmful. A careful study of the literature cannot but convince one that the drug has a therapeutic value.

One of the greatest triumphs of experimental medicine was the discovery of the use of thyroid extract in cases of cretinism and myxedema. It was this wonderful discovery that brought to the attention of the entire medical world to the importance that the internal secretions play in the growth and development of the individual.

In childhood the thyroid secretion acts as a stimulant to growth both bodily and mentally. It seems to play an unknown part in nitrogen metabolism and in the deposition and distribution of fat. It is intimately connected with the growth and development of the sexual organs. Its secretion is increased during menstruation and in pregnancy. If its secretion is diminished menstruation is imperfect and pregnancy is abnormal. Its secretion is always necessary for mental activity and proper cerebration. Upon the proper secretion depend the stability of the nervous system. Its relation to the circulatory system is a matter of theory. That the gland supplies a vasodilator secretion is known. Its secretion is increased by mental excitement and nervous tension—genital disturbances in menstruation and pregnancy, in sexual excitement and by drugs which stimulate the nervous system. It is decreased by exclusion of all nervous stimuli seclusion and rest—and the administration of nervous sedatives.

Thyroid extract has proved of great value in many cases of infantile obesity. It has been used successfully in the treatment of slow growing children with asthmatic tendencies. The results obtained by its administration in cretenism and myxedema are simply marvelous.

Chlorosis, amenorrhea, pernicious vomiting of pregnancy, eclampsia, digestive disturbances, melancholia have been benefited by the drug. But it must be strongly emphasized that these conditions are only benefited when they are the result of a hyposecretion of the gland. Therefore great care should be used in the administration of the extract, and the patient kept constantly under observation.

The reason why so many medical men differ as to the value of the drug in certain condition is due in part to the fact that much of the thyroid extract on the market is not active. This objection can be overcame by administering it with an iodide, which will render it active. Three grains of sodium iodid given with the extract will sometimes produce results, when the thyroid alone

has failed. The iodids also act as activators of the thyroid secretion.

It is absolutely necessary for us to know the part the thyroid plays in the physiological functions of the normal individual in order to use the drug intelligently in pathological conditions. There is no drug more abused in its use than the extract of the thyroid gland. It has been used in almost every ailment to which man is prone. That this promiscuous use has produced great harm there can be no doubt, for when given to patients who should not receive it, it will aggravate their symptoms and many times a wavering thyroid gland has been forced to hypersecretion and Graves disease.

The existence of an internal function although not necessarily an internal secretion has been a justifiable assumption since the discovery that the removal of the pancreas of dogs always produces a severe and rapidly fatal diabetes. When the pancreatic tissue is transplanted glycosuria does not develope when the gland proper is removed, but the further removal of the graft is followed by fatal diabetes. Absence of diabetes after the loss to the body of all the external secretion indicates that the disease is not due to any change in the pancreatic juice.

All attempts to obtain from the pancreas an internal secretion have failed. Whether or not the so called islands of Langerhams are the producers of an internal secretion has not been proved. Animal experiments show that induced atrophy of the pancreas or even complete atrophy, that glycosuria may not result, but that the tolerance to carbohydrates is greatly reduced. Feeding the fresh gland has increased this tolerance.

These interesting experiments led to the administration of the gland in human diabetes. It was thought that it would increase the carbohydrate tolerance in man but the results have been very unsatisfactory.

Constantly accumulating evidence indicates a very intimate association of the two organs, pancreas and adrenals, and points to an inhibitory action of the adrenals secretion over the internal secretion of the pancreas. These very interesting experiments shed some light upon the subject but the cause of diabetes mellitus still remains an unsolved question and organo-therapy has proved a failure.

Opium still stands as the best means to diminish the thirst, appetite, amount of urine, secretion of sugar and nervous irritability.

Most physiologists seem to think that the ovaries secrete a peculiar material which accepted into the system plays an important part in the maintenance of the normal physiological balance, that it is intimately connected with menstruation and that it is the source of an internal secretion necessary for the life of the fetus. Removal of the corpora luteum causes abortion but this does not occur if a corpus luteum be grafted in some other part of the body. The gland may produce several secretions, one of which causes hypermia of the pelvic organs and another which acts as a neutralizer and relieves the nervous symptoms of toxic character at menapause.

"Many cases of double ovarectomies have shown that it is the primary and all important organ in the reproductive cycle, that it regulates and controls the perfect attainment of development, growth and function in the individual women and that ts retention is essential to sex perpetuation."

From our present inadequate knowledge of the function of the gland and the maze of contradictory statements as to its clinical value, one cannot put much faith in its therapeutic use.

Although organotherapy is one of the

oldest and most wide spread forms of therapy a careful study of the recent research in the field shows that the subject is still in its infancy.

Experimental work with the thyroid gland has proven that in order to be of therapeutic value the ductless gland must contain its secretion in such amounts and in such a form that when administered it will reach the circulation in sufficient quantity to meet the urgent needs of the body. It depends upon the amount of active substance stored up in the gland cells, and the chemical stabilty of this contained secretion.

A careful clinical study of the value of the organotherapeutic agents shows that with the exception of thyroid extract the results obtained have been unsatisfactory. Hundreds of preparations are now on the market exploited by manufacturers who use every form of advertising to sell their products. There are extracts of the brain, spinal cord, kidneys, spleen, liver and many other organs of which there is no evidence that an internal secretion is formed. Extracts of the pancreas for use in diabetes when there is no evidence that the organ contains an active secretion. Extracts of the testicles, ovaries, and mammary glands which are known to contain an active principle but where it is doubtful if they produce any result when administered by mouth. Such preparations should be received with great reserve and much skepticism.

MISCELLANEOUS

AN INTERESTING LETTER FROM ONE OF OUR REGULAR CONTRIBUTORS.

Roanoke, Va., June 9, 1913.

Editor Wisconsin Medical Recorder,
Janesville, Wis.

Dear Sir:

This day and month find us in the state of Virginia, One of the most interesting features of the state are the natural attractions. The one which has interested me most is the natural bridge. It is called one of the greatest natural curiosities of the western world. This bridge is an immense expanse of limestone connecting two small mountains. Beneath the great arch runs a large stream called Cedar Creek. The height of this great bridge is two hundred and fifteen feet, the width one hundred feet, and it spans a gorge ninety feet in breadth. It is fifty-five feet higher than Niagara Falls. The walls of the bridge are as if they had been cut with a sculptor's chisel and there is no sign of displacement in the work which nature has been doing for centures.

The bridge was a wonder to the red men who inhabited this region in great numbers before the coming of the hardy and home seeking pioneer who began to push his way in this territory about the year of 1730. The Scotch Irish pioneer who first invaded this section attached little value to the property as he was presumably a home seeker, and it was not until Thomas Jefferson visited this region that the idea orcurred to anyone to purchase the bridge.

Mr. Jefferson obtained a grant from George the third, King of England, for the sum of twenty shillings. In 1775 Mr. Jefferson built near the bridge a large log cabin, containing two rooms, and placed in one end of this cabin a negro man and his wife. The instructions to the negro were to keep one of the rooms for visitors to the bridge, and to charge nothing for viewing the same. Since then it has been held by eleven owners. The region is one of the most

beautiful places in the Blue Ridge Mountains.

In 1881 Col. H. C. Parsons organized a company which purchased the bridge and a large area of the surrounding territory and to this company and the originator is due the credit of beautifying the place and making improvements worthy of this great work of nature. The rail roads pass within two miles of the bridge and the public has every facility of modern travel to aid in reaching the place and annually thousands of visitors from all sections of the United States visit it and many foreigners also adjourn there to enjoy the view. Gen. Geo. Washington paid several visits to the locality and climbed up the immense arch and carved his name highest under the bridge. His name may still be seen on the lime stone where he carved it. For many years no other person attempted the feat; but in 1818 James H. Piper, a student of Washington College, Lexington, Va., climbed far above Geo. Washington's position and made his egress on a ledge which he succeeded in reaching by a leap that saved his life. His distance up the side of the gorge was one hundred and seventy feet. Several persons have comitted suicide by jumping from the bridge. To go to the edge and look over it's frightful. It is said there seems to be an influence that urges one to leap into the chasm. In 1834 Captain Lackland, then owner of the property made an iron carriage in which visitors were let down over the brige by a windlass. For this he charged each passenger a dollar. Many accidents have occurred there to visitors who have been too daring in flirting with danger.

This city seems a progressive place, and is filled with real estate dealers. Apple orchard propositions,—then land—land—land, to dispose of. Wonderful bargains are offered, and the circulars issued setting forth the tempting sales tell of the many Western and Northern families who have taken advanage of the splendid opportunity and settled down here and on the road to apparent wealth. But so far the writer has met only one person from New York State, in the person of a young woman, wife of the son of a business man who has a chain of seven stores, and the proprietor is from Maryland. The Northern and Western families possible are in the country if such a possibility can exist. The apples grown here are among the finest we ever sampled. Food supplies are high, in fact I see but little difference between the prices here and in the cities of New York state. Small chickens, which appear to be composed principally at this early age of feathers and bones, minus the flesh sell alive for 35c to 45c, old hens bring $1 to $1.25. Even old potatoes are a good price. Rent is high, houses scarce and unless one has a good income, they won't save sufficient to start a fortune.

A lodge of Owls was being organized here at the hotel where we were stopping and the literature appeared attractive as well as the big white owl in the window—for a drawing card. As the card stated the fees were low and the benefits great. The badge with the three golden hoot-owls setting on a gold branch appealed to me as a very unique and striking pin. Later my husband joined the fraternity. The lodges of Elks and Eagles own their own buildings and are large and prosperous. I have noticed that the Daughters of the Confederacy have a chapter here, but the D. A. R. and Daughters of 1812 do not seem to flourish in the place.

I am told there are one hundred doctors of medicine here, and the literature advertising the farm property states that the population is 50,000 strong, but the people who seem best posted on local affairs call the figure about

37,000, so according to either count of residents the M. D.s' must be in minority. We saw the signs of two 'chiropractors'' hanging out greatly replenished in gilt and black and later my husband rented an office on the same floor as one of these gentlemen. He returned one day telling me that this ''D. C.''—not District of Columbia, but the degree ''Doctor of Chiropractor''—he understood had treated 40 persons at $1 a head. I am not from Missouri. I didn't believe it. The next day I chanced to be down in the building and my husband had some business with the man but he chanced to be out. So we had to wait and I looked about at his books and diplomas—diplomas all correspondence courses. One from College in Chicago, and another as ''Doctor of Nerves'' bestowed by a ''Firm'' up in Ohio. On the waiting table lay all manner of literature from the schools of Chiropractors advertising their courses from $50 to $200 (if they could get it) and telling all the big fees and fortunes made by their students. I told Dr. Ashton perhaps this way of leaving one's business exposed to the public in such a slip-shod fashion might do down here—but never in the West or the North. For patients to come in the office and have literature of this sort on the public table, and the prospective patients read through one of these pamphlets and notice that the Doctor graduated for $50 in a month, etc. Might do in Virginia; but let this gentleman just go up in New York state and try his methods and I guess he would have to resort to sawing wood for a living, for up there the folks are wise and not easily fooled. Well at length as the ''Dr.'' did not show up I went away. Later he was pointed out to me as a little fellow who worked a farm in the mountainous districts and took this up. He was not prepossesing, handsome, had no military bearing and no education. Yet strange to say with one of the ''Betz'' $65 electric vibrators he treats from twenty to forty people—men and women—daily. Up the street is the other ''D. C.''—through cash or some pull this individual gets write ups in the city paper by the reporter of the wonderful cures he has accomplished, then these appear in the form of reprints for a little pamphlet he issues to advertise his ability. He also has the vibrator and with this treats most as many as the other . Looks to me as if these two fellows took most of the practice away from the M. D.'s. Seems strange that men who spend thousands of dollars and years of study in medical education, can be handicapped by two men engaged in the practice of the same art and science at the expense of a few dollars and a few weeks study of a correspondence course.

As to myself as yet I have not filled out reciprocity blanks for a Virginia licence, perhaps my N. Y. will not be recognized, the fee is $30. We expect to go to Florida in the fall as Dr. Ashton will be engaged for the winter season at one of the large winter hotels on the coast. In the spring we will spend some time in Florida and later in Cuba.

With best wishes for the success of the Wisconsin Medical Journal, I am,

Very respectfully yours,
GRACE M. N. ASHTON, M. D.

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Dr. Smith, in Boston Med. and Surg. Jour., discusses the two current issues concerning the manner of action of pollen grains in hay fever: first, that they act as soluble toxins; second, that they act as foreign proteins, inducing anaphylaxis in sensitized individuals. Neither theory is completely supported either by the known facts or by the experimental evidence thus far brought forth. Further investigation is necessary. Likewise anaphylaxis itself needs further study.

LIVING TO EAT, OR EATING TO LIVE?

By W. T. Marrs, M. D., Peoria, Ill.

Shoull eating be regarded as a pleasure or a duty—or both? Edison, the wizard of electricity, went on record in a magazine recently as one who is opposed to eating for pleasure or for the satisfaction of gratifying the palate. Mr. Edison says it is a dangerous thing to cultivate an appetite; he makes a distinction between hunger and appetite, the one natural and the other acquired. This scientist avers that eating is no more pleasure to him than breathing. And still most of us regard breathing as a pleasure, at least when there are any restrictions placed upon the function. Mr. Edison is not here mentioned as having any semblance of authority on matters medical. We know what grievous mistakes laymen make when they butt into medical subjects. The great electrical wizard also heralded the statement some months ago that we waste too much of our time in sleep and that four hours or less of "tired nature's sweet restorer" is enough for any man or woman. Our insane institutions are all filled now to their capacity, but if the world should undertake to put into practice Mr. Edison's dictum there would soon come a time when there would not be enough capable persons to take care of the "daffydills."

On the other hand, Dr. Woods Hutchinson whom we see so much of in lay literature asseverates constantly that eating is a joy and that there is something wrong with the individual who does not enjoy his meals. It is probable that the Creator intended that eating should furnish us at least a modicum of pleasure or we would not by instinct take to it in infancy. But the philosophy of this matter is, I think, pretty well exemplified by Emerson in his "Law of Compensation": "Every faculty which is a receiver of pleasure has an equal penalty put on it for abuse. It is to answer for its moderation with its life.

Dr. Hutchinson, by the way, is somewhat of an iconoclast in medical matrs and in his sweeping and entertaining way, at so much per word, is knocking over many of our cherished beliefs and customs, especially on the subject of dietetics. I have read nearly all his published articles and have also heard him lecture. It is needless to state that he makes a very entertaining story teller, judiciously blending as he does erudition and humor. With a great volume of worls and many illustrations he points out the correct manner of living. Summed up in a few words his dietetic advice would be: "Eat and drink what you please so long as it agrees with you and as much of it as you can." Hutchinson's creed is broad and is not essentially helpful to the individual who eats and drinks as he pleases; but he has doubtless set many a poor vegetarian, misguided neurasthenic and crank dietis on the right track. It is a well-known fact that any person who takes up a dietetic fad and sticks to it very long will soon pay the penalty in wrecked health and an early death.

After all, the oft-heard slogans, "We eat too much," "We dig our graves with our teeth," etc., perhaps do not apply to most of us. If we only stop to reason a moment we must admit that health and vitality must be dependent upon nutrition, and without a well-balanced dietary we can not have a well-balanced nutrition. Dieting never gets one anywhere; by this I mean the dieting which leaves out those elements that are essential to give the body sufficient calories of heat and energy.

A great many of our food idols are falling. Recent investigations have brought out the fact that even lean meat is not so full of "uric acid" as

we once thought. And, by the way, uric acid is now considered a somewhat innocuous substance and a sort of by-product as it were. Cake, pies, puddings and pastries in general are now coming to be considered as wholesome. How we do change! And scientists and clinicians are telling us to drink water with our meals and drink it abundantly without fear of "diluting the gastric juice."

In the matter of dietetics and hygiene it seems that we move in a circle and the processions is only a little ahead of us when it is not in the rear.

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THE FARADIC CURRENT.

By J. A. Burnett, M. D., Hartshorne, Okla.

The faradic current is the oldest current in electro-therapeutics and a very important one when the right kind of an apparatus is used such as I have described in my article "The Faradic Current." May, 1913, Medical Century.

It is claimed by some that the sinusoidal current replaces the faradic but this is only a matter of personal opinion.

On page 1754 Journ. A. M. A., May 31, 1913, an abstract of an article "Faradic Current in Treatment of Intermittent Limping" from a foreign journal. It reads as follows:

"Kuhn calls attention to the benefit attained in the case of a man of 68 suffering from intermittent claudication and given treatment with the four cell electric bath. Each leg was placed in a deep vessel of water at 35 C. and the faradic current was brought into the water. The femoral pulse at first was imperceptible but after twelve settings it became palpable again. A point near the tibia was still quite painful but this was cured by direct application of the faradic electrode. The patient had been unable to walk but now six years later he can take comparatively long walks without disturbance."

I graduated at the Collge of Physicians and Surgons of Little Rock, Arkansas April 29, 1909, and purchased a faradic battery in a short time after graduating. The faradic battery such as the No. 8 made by the Chloride of Silver Dry Cell Battery Co. of Baltimore, Md. is very portable and can be carried from place to place. It is not only a useful apparatus for those specializing in electro-therapeutics but very useful in many conditions in general practice. This No. 8 battery responds to any demands made upon the faradic currnt. Dr. Otto Juettner, a well known authority in physiological medication has the following to say in the March, 1913, Therapeutic Record:

"The simplest electrical device as far as its use is concerned is the so-called 'faradic battery.' It produces the 'faradic' or nowadays more properly called 'interrupted' current which is a most excellent muscular tonic. Therein lies its therapeutic virtue. The alternate contraction and relaxation or even the continuous contraction of muscular tissue stimulates nutrition, enhances the blood supply and in this way improves the functional capacity of muscular tissue. Weakness of the muscles up to the point of paralysis is amenable to faradic treatment. This opens up a wide scope of therapeutic possibilities. With suitable technique the interrupted current is indicated in all paralysis, muscular atrophy, rectocele prolapsus of the rectal or vaginal walls, menorrhagia metorrhagia dysmenorrhoea, displacement of the uterus redundant fat in abdominal wall, neuralgia, etc. The treatments last for 10 to 30 minutes and are given 3 or 4 times weekly. General faradization preferably through a general bath is a splendid systemic tonic."

This quotation from Dr. Juettner

is a complete article of real value in itself. If the reader wishes more similar notes to the point he can find them in the article in the Medical Century which I have already mentioned, my article "The Faradic Current," March 1912, Medical Brief and "Galvanic and Faradic Electricity," Feb., 1912, Medical Era.

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PULMONARY TUBERCULOSIS.

By J. A. Burnett, M. D., Hartshorne, Okla.

There are likely more literature on pulmonary tuberculosis than any other one disease.

In my opinion the most important thing in treatment of pulmonary tuberculosis is an early diagnosis. The Brief following is from the June, 1909, Medical Brief:

"Any of the following symptoms should lead one to consult his physician and have his lungs examined and sputum tested.

"(1) A cough lasting a month except whooping cough.

"(2) Poor appetite (especially in the morning) and indigestion, loss of weight and strngth and pallor (generally 'run down').

"(3) Hoarseness lasting several weeks.

"(4) Spitting especially in the morning.

"(5) Night sweats.

"(6) Spitting blood.

"(7) Fever in afternoon shown by flushed face and tired feeling.

"Any several or all of these symptoms coming after a severe cold, grippe, bronchitis, whooping cough, measles, typhoid fever or any other acute dsease may indicate tuberculosis.

"Two or three or more examinations should be made. The germs may not be found the first time the sputum is examined and it is a very difficult disease to diagnose even in a physical examination.

"Too much publicity cannot be given to knowledge of this kind which may be the means of saving untold sorrow, and suffering and thousands of lives besides.

"The Board of Health of every community in the state should endeavor to convey this life saving information to every citizen within its reach and its importanre should not be overlooked by any one interested in the preventive work of the anti-tuberculosis campaign."

Dr. Herman M. Biggs, General Medical Officer of the Health Department of New York City prepared the above first symptoms of pulmonary tuberculosis at the request of the State Charities Aid Association.

They have been submitted to and endorsed by the following members of the State Charities Aid Association Commtiee on the Prevention of Tuberculosis: Drs. E. L. Trudeau, Livingston Farrand, Charles Hitchcock, Edward G. Janeway and Eugene H. Porter.

If a diagnosis of pulmonary tuberculosis is made real early in the disease then the treatment is much more successful and so many others will not be infected as if the patient had gone on until the disease was in an advanced stage.

The laity are prone to think that a person must be almost dead in order to have tuberculosis for the simple reason they are not use to seeing a diagnosis made only in the advanced stage.

It should be remembered that in the earliest stages of pulmonary tuberculosis that there are very few symptoms as well as in the early stages of most all other diseases. No one should be so hide bound or narrow minded as to think that tuberculosis only appears in the later or advanced stages. There is a tendency in a great portion of the public to think they are able to diag-

nose most anything. If they see one person with pulmonary tuberculosis that they are satisfied has it they then think all other cases must be just like it. I find that many of the laity after reading an almanac or patent medicine circulars decided they have a very profound knowledge of medical science and know more than a four year graduate in medicine.

It is often among this class that a diagnosis is not made or treatment not given until the disease is in the advanced stage and it is this class of thinkers that usually infect more innocent people.

ADRENALIN ANEMIA.

By Drs. R. Reicher and E. Lenz.

As stated in a former publication we were enabled to increase the application of Roentgen-rays to a double erythema-dose (about 8 to 10 H.) without fear of injury, within a period of fourteen to eighteen days, on the same dermal area, by prviously desensitizing the skin by means of an injection of Adrenalin. Since then our method has been thoroughly tested, at the Lesser University Clinic, by Fritz M. Meyer, who administered three-fourths of a full dose in two successive days. In consequence Meyer concluded that the new method is devoid of danger, permits the use of larger doses of Roentgen-rays than heretofore, anl even produces satisfactory results in cases that were not amenable to the Roentgen therapy hitherto. With the exception of a single instance of erythema, there were no late reactions. In the course of our subsequent experiments, the necessity of a modification of the local administration of Adrenalin for the production of anemia in large dermal areas became apparent. Adrenalin salves were tried, but proved inadequate. The best results were obtained by iontophoresis or electrophoresis. In this method of administering the medicament subcutaneouly the deferent (anemia-producing) electrode takes the place of the puncture needle. The former represents the positive pole, in the case of Adrenalin, in the form of a pledget of mull that has been saturated with a solution of Adrenalin and Novocaine. The galvanc current disassociates the Adrenalin chloride molecule, and the iron that produces the ischemia moves toward the cathode as an electropositive element during the passage of the current. Simultaneously the active Adrenalin ions at the anode penetrate the skin under the deferent electrode, in consequence of the electro-osmotic pressure and proluce anemia. As an electrode we employ several layers of tin-foil, or the electrodes that are commonly used in electrotherapy or electrodiagnosis.

Care should be taken to select a deferent electrode that is somewhat smaller than the mull-pledget saturated with Adrenalin that lies under it; if this is neglected, a marked peripheral hyperemia will be the result. The size of the electrodes and mull-pledget depends upon the extent of the dermal surface that is to be depleted and to be exposed to the Roentgen-rays. The indeferent electrode (cathode) should be rather large and may be applied to any part of the body, preferably opposite the anode The intensity of the current depends upon the size of the electrode. To protect the skin against the action of th x-rays we recommend an electrophoresis of ten minutes' duration. The anemia generally lasts half an hour, which is long enough to apply three-quarters of an erythema-dose.

MALINSERTION OF THE PLACENTA.

By Wm. F. Waugh, M. D., Chicago Ill.

Jeannin, in Paris Medical—Le Monde Medical, details the latest French methods of treating bad insertions of the placenta.

If there has been a first hemorrhage with slight bleeding, it suffices to immobilize the patient in bed, making vaginal injections at 48C., to assure antisepsis of the genital tract and freedom of the bowels.

When the hemorrhage recurs, if it is abundant and menaces the life of the mother, the conduct varies according to the state of the neck. If the neck is long and resistant, if it is firm, it is necessary to employ the two following methods simultaneously:

1. Rupture of the membranes.
2. Vaginal tamponnement.

After careful antisepsis of the vulva and vagina the woman is placed in the obstetric position; the neck is brought down by a Museu forceps, and dilated with Hegar's bougies or Bossi's dilators. When the dilatation is sufficient, perforate the membranes with the finger or an instrument, and dilate them as high as possible. Immediately afterward tampon the interior of the neck with a band of gauze, bourro the vaginal cul-de-sacs and the whole vaginal cavity, apply cotton over the vulva, and retain the dressings with a T bandage.

Labor declares itself in 8 to 10 hours, with one of these conditions:

The neck is soft, opening and dilatable. The finger introduced reaches the membranes or the placental cotyledons.

If the membranes are reached, break them freely and introduce the baloon dilator of Champetier de Ribes, which opposes hemorrhage, or bring down the breech by the method of Braxton Hicks. One may then find himself in presence of one of several eventualities:

If the breech presents, go in search of a foot, preferably turned to the front, bring it to the vulva and fasten with a lace.

If the head presents, transform the cephalic into a breech presentation by bipolar version, made by mixed internal and external manipulation. One hand is introduced into the genital passage, the right if the occiput is to the left, and inversely, and push the head upward and back obliquely, while the other hand acting externally on the fundus lowers the breech until it takes the place of the head. Then bring down a foot, on which make traction from time to time that the breech may apply firmly to the inferior segment.

Braxton-Hicks' method is not always possible. It is then necessary to have recourse to the baloon dilator of Braun or of Champetier. Well asepticized, rolled up, the baloon is introduced by means of a special forceps, the woman being in the obstetric position and the neck lowered by the Museu forceps. Make the balloon penetrate gently above the internal os, and distend it gently, without excess, so that it will project into the neck. Take away the forceps and leave the balloon to be rejected into the vagina by the uterine contractions.

If the palcenta covers the cervical orifice, the hemorrhage is very grave, and it is necessary to empty the uterus as quickly as possibleby rapid methodic acouchement, by the bumanual dilatation of Bonnaire, or by the dilator of Bossi.

For the bimanual dilatation the woman, in the obstetric position, the acouncheur introduces the index finger in the os and seeks to dilate the neck; little by little he seeks to penetrate the medius. As the orifice distends the finger and medius of the other hand are introduced with the backs of the two indices together, and pulling apart to

stretch open the neck. Little by little and without pressure, (sans se presser) all eight fingers are introduced, and dilatation continued until the fingers on all sides touch the parietes of the pelvis and follow all the diameters. In all these maneuvers are necessary a perfect antisepsis and a great gentleness. The dilatation seems sufficient when the hand, the wrist firm traverses easily the neck.

If bimanual dilatation is impossible, have recourse to Bossi's dilator. The woman is anesthetized, and the instrument introduced into the neck, held down by the Museu forceps. Dilatation should be done with extreme gentleness and slowness, for Bossi's dilator is an extremely powerful instrument. Really it should only be used to commence dilatation, which should be completed by the hands.

As soon as dilatation suffices, proceed to evacuate the tutrus. During the accouchement the conduct is as follows:

1. Dilatation is scarcely commencing:

If there is a latero-marginal insertion, break the membranes; the presenting part engages, the hemorrhage is arrested.

If there is a central insertion, practice rapid methodic accouchement.

2. Dilatation is begun but not complete:

Break the membranes and wait, if the woman loses little.

If hemorrhage is worse, rapid methodic accouchement, if one does not fear uterine ruptures, when dilatation attains 5 to 6 centimeters.

If the placenta is central, force a passage at the side of it to reach and break the membranes.

If this is not possible, penetrate the placenta boldly, enlarge the passage, and through this orifice seek the foot.

If the neck is too resistant, employ the method of Braxton-Hicks, or insert a large balloon.

If the neck is dilated or dilatable, terminate the accouchement by completing the dilatation if necessary manually; forceps or version as the case may be.

The accouchement terminated, follow the artificial deliverance with a utero-vaginal tamponnade, to be left in place 12 hours. Watch the patient and institute general treatment.

To this fine presentment might be added a word as to that general treatment alluded to in the last paragraph. On of the observations of Burggrave to which sufficient attention has not been given in this country was that of the influence of the dosimetric triad—aconitine, digitalin and strychnine arsenate—in preventing the development of inflamatory or febrile phenomena following traumatisms. This was so marked in cases observed by Pean that he spoke of the remedies as 'those marvelous little granules.' With the element of fecal toxemia excluded by careful attention to the bowels, and the vasomotor equilibrium sedulously maintained by the defervescent alkaloids, there is little possibility of the dreaded complications following.

It was probably luck—or that kind providence that cares for the young doctor and his patients—that permitted the writer the good results of his early years. The books speak of podalic version alone; the writers mention nothing else; yet the writer has in every case of placenta previa broken through membranes or placenta as either presented, and brought down the head, holding it firmly against the os until the contractions drove it down and stopped the bleeding. Then delivery as speedily as forceps would allow—and every case recovered.

My obstetric list embraced about 1000 cases; and in all my active practice I never did a podalic version, saw an eclamptic convulsion except in consultation on other men's patients, or had

a death in child-birth—of the mother. I never was looked upon as exceptionally skillful in this line, nor did I credit myself with any than average ability; so that either a large share of luck attended me, or the terrible things we read of are rare in ordinary American families.

♣ ♣ ♣

Editor Wis. Med. Recorder.

Dr. T. F. Johnson sounds a slogan in his call for Clean Therapeutics. Slogans need careful examination before adoption because while they may appear to be gold they may prove to be like "the sounding brass or tinkling cymbal." A slogan is a condensed propaganda and it is often true that when we use too few words the meaning is just as vague as when we use too many. Did you ever receive a telegram which was puzzling because the sender was too stingy to spend a few cents for extra words over the ten-word limit?

Clean, I take it, means free from dirt. Now dirt is of different kinds: macroscopic, microscopic, ultra-microscopc and dishonest. Paradoxical as it may sound it is possible to have clean dirt, that is sand or clay can be cleansed or sterilized and could be swallowed or even left in the peritoneal cavity with impunity. The worst thing about dirt as ordinarily considered, is the bacteria. Take some of the sand from the beach of the East shore of Lake Michigan, wash and bake it and it is clean, but as an internal medicine it is no good: it is just like some of the substances used in pharmacy, simply inert. Give us clean pharmaceuticals, prepared in a cleanly manner, we must all agree with Dr. Johnson on that point as far as the vegetable and mineral kingdoms are concerned. But when he condemns serums, vaccines and bacterins as dirty, per se, I am afraid I shall have to ask his explanation why these substances are considered dirty, by him.

Take diphtheria antitoxin, for instanc: it can be reduced to globulins, which are clean in appearance, free from clay, sand or humus, and free from bacteria. I don't see anything filthy or nasty in the diphtheria antitoxin. It has snatched my own two children from death by larygeal diphtheria and if this antitoxin is nasty would we had some more of the same nasty treatment for other infections!

The whole problem of medicinal therapeutics is one of chemistry: the plant chemistry, the chemistry of the gases cooling to form our mundane sphere, produce products which refined by pharmaceutical methods gives us plant and mineral medicines. Why should we draw the line at animal chemistry and say for instance that the serum from a normal horse is necessarily unclean. I am wiling to be shown.

I believe with Dr. Johnson that truth is the point within the circle. If we are heading for the truth although on different radii we must come within hand-clasping distance of each other: if our backs are toward the truth we can go the length of our own particular radius and get farther from the truth and from each other with every step we take.

E. P. S. Miller, M. D.

We are glad to publish this letter written by Dr. Miller. A discussion of the different articles appearing in "The Recorder" is what we are after, let the good work go on.

♣ ♣ ♣

Dr. J. H. Garrett recommends the use of strong solution of perchloride of iron in the treatment of ringworm of the scalp. The application is made with a brush until the scalp is well stained, every second day for six days and then every third day for eighteen days. A cure is generally effected by this time.

SALICYTIC ACID.

By J. A. Burnett, M. D., Hartshorne, Okla.

Salicytic acid can be used hypodermically. The following is from Shoemaker:

"Bernheim makes use of hypodermic injections of salicytic acid in order to relieve the night sweats of phtisis. The soluton which he employs contains 6 Gm. (or ʒjss) of the acid in 30 c. cm. (or ℥i) distilled water to which is added 11 c. cm. (or ʒiii) of glycerin and 15 c. cm. (or ʒ iv) of alcohol. He injects 2 c. cm. (or m xxx) of the solution on four or five successive evenings."

The hypodermic use of salicytic acid deserves attention as the hypodermic method of using remedies is one of the most perfect ways of using drugs. Salicylic acid can be used by inhalation. The following is from Shoemaker.

"Salicylic acid may also be employed in foetid bronchitis as an inhalation with a steam atomiizer using 15.5 Gm. (or ʒ iv) of borax in 503 c. cm. (or ℥ xviee) of boiling water to which 15.5 Gm. (or ℥ ss) of salicylic acid is to be added. The same solution can be used in catarrhal pneumonia in phthisis, etc."

Inhalations is a subject very much overlooked by the average physician. I think the above formula is a good one even if it is an old one. Salicylic acid can be used externally for general systemic effect. The following is from Shoemaker:

"It has been found that the local application of salicylic acid is beneficial in acute articular rheumatism. The drug acts by absorpton as it may be detected in the urine within half an hour after the application has been made. Dr. Bourget who has long relied upon the external use of salicylic acid regards the following as the best formula:

℞
Acidi salicylici .....ʒ ijss
Lanolin .....ʒ iiss
Olei terebinthinae rectifact ʒ iiss
Adipis .....℥ iiss

It must be noted however that cases of intoxication have occurred as a result of excessive local use of the remedy."

It occurs to me that if these results can be obtained the remedy should always be used locally instead of being used internally. I hope a few of the readers of the Recorder will try the remedy locally for systemic effect and report results. Salicylic acid has an influence upon the utero-ovarian circulation and can be used with advantage in cases of amenorrhoea and dysmenorrhoea.

When the temperature is above normal salicylic acid acts as a febrifuge in a mild way. It is usually best to combine it with more powerful antipyretics as with acetanide or in the following formula:

℞
Acidi saliclic .....gr. cc.
Liq. ammon. acitatis.
Aqua camphorae .....aa ʒ v
Spt. aetheris nitrosi qs ad ....℥ ii

Sig.—Dose one teaspoonful in water every 2 or 3 hours.

Another similar formula is:

℞
Acidi salicylici .....ʒ ii
Spt. aetheris nitrosi .....℥ iv
Tinct. cardamom co .....℥ i

M. Sig.—Dose two teaspoonfuls in water every two hours. Equal parts of salicylic acid and acetanilide blowed on the tonsils in acute tonsilitis gives good results.

A mixture of salicylic acid and chalk makes a good dentifrice with collodion makes a good application for soft corns and scabies and with lanolin makes a good application for freckles, etc.

The Wisconsin
Medical Recorder

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F. W. VAN KIRK. M. D. } EDITORS
PUBLISHED BY
WISCONSIN MEDICAL RECORDER
JANESVILLE, WIS.

SUBSCRIPTION PRICE

$1.00 per Year in Advance; Single Copies 10c in the United States and Mexico.
$1.25 per Year in Canada.
$1.50 per Year in Foreign Countries in the postal Union.

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LETTERS, CASE REPORTS AND QUESTIONS are desired for our Discussion Department.

We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Reports and items of interest are gladly received.

VOL. 16 JUNE, 1913 No. 6

THE STETHOSCOPE.

It goes without saying that practically every physician who is doing general or special work is a possessor of a stethoscope, yet the question often arises do we use the stethoscope as offen as we should. Primarily the stethoscope was invented for the purpose of more exactly examining the heart and the lungs in order to find out the exact conditions present in these organs, thus giving us the greatest aid as a means of diagnosis, and therefore indirectly helping us in the deciding of the treatment to be used.

I wonder how many general men use the stethoscope to aid them in making other diagnosis other than those associated with conditions of the heart and lungs? In cases where there is a question of whether the stomach is dilated or not, the use of this instrument combined with percussion will give us the exact information desired. The same can be said of the liver, spleen, etc. In cases where there is a question as to more particularly those cases where it is impossible to palpate the same, to any possible to palpate the same, to any degree of certainty, the stethoscope again comes in play and is often a great aid in clearing up the one stumbling point that will give us the key to the exact conditon of affairs.

We as physicians often neglect to obtain the exact information we are most desirous of obtaining by neglecting to use the simple means we have at hand. So let us again emphasize this point and emphasize it strongly—not to be afraid to use our stethoscope at all possible times. With this instrument as well as with any other the same rule applies, that the more we use it the more proficient we become in its use, the ear becomes more and more accustomed to the transmitted sounds and the more skilled we become in making our diagnosis.

♣ ♣ ♣

GEORGE H. SIMMONS.

Every reader of the Journal of the American Medical Association knows that Dr. George H. Simmons is the editor of the same, and most every physician in the country as well as most every layman knows that there is a concerted movement on foot among certain members of the profession to depose him from office. At the present time even some of the lay journals are taking up this matter and are rehashing events that have taken place in his early professional career and have even attacked his private life.

A few years ago these different charges against Dr. George H. Simmons were investigated by the Chicago

Medical Society—and while it was proven that during the early years of his career he did advertise, it was taken into consideration that at that time most all physicans advertised in one way or another, and that it was not considered unethical to do so. At the time of the investigation and for years previous to that time there was no question as to the manner in which Dr. Simmons had conducted himself professionally.

Every physican as well as every layman knows, that the success of an enterprise lies in organization and when the physicians organized and formed the American Medical Association they took the first step toward advancement along medical ines.

We who are members of this association, and the members of the profession who are not, must admit that an association that has on its membership roll the leading men of the profession. must be working along the lines that will benefit all members of the profession. If this Association finds that Dr. Simmons is not the right man for the place, I have no fear but that they will ask for his resignation at once, and they will not allow sentiment to influence them in any way.

Politics, eternal politics, it seems that if one profession more than another that should not be run by politics ought to be the medical profession, but each year seems to bring forth different factions, who want offices the other fellow has got, but it was ever so, and I guess the green eyed monster, jealousy will ever be lurking in our midst.

♣ ♣ ♣

INTENSIFYING SCREENS.

There are two ways of using an intensifying screen. The first, and most accepted way, is to put the plate in the cassette sensitive side up: put on the cover of the cassette, clamping it down firmly. Then the picture is made with the rays going through the top of the cassette, through the glass plate, affecting the coating of the plate, going through it, and causing the intensifying screen to become luminous. The x-rays then have been changed to light rays, and affect the plate a second time. On some screens the luminosity continues as phosphorescence for some minutes after the rays have been turned off.

Another way of using is to put the screen into the cassette, sensitive side up: put the plate in sensitive side down: in this way the rays go through the screen and not through the glass. This latter method is more apt to give you hazy, blurred effects, especially where a screen having a thick coating of crystals is used.

Whenever a screen is used, the sensitive side of the plate and the active side of the screen must be in contact. The nearer they are, the better: and if either should move without the other during an exposure, or immediately after, you will get a very much blurred negative. Much better results are always obtained when a cassette instead of an envelope is used for the above reason.

The judicious use of a screen will make even a small equipment valuable for comparatively heavy work, and even with large apparatus is a necessity in many cases.

Modern screens may be washed with soap and water. If a screen becomes scratched, or stained by developer, or hypo, it is spoiled for good work.

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In gastric catarrh with much mucus citric acid often gives quick relief. Withhold carbohydrates from dietary where amylaceous dyspepsia coexists. In acute gastritis give sodium or potassum citrate and larger amounts of water.—Hemenway.

ABSTRACTS

Abstract of paper to be read at the Minneapolis Meeting of American Medical Assocaton June 17 to 21, on "The Results of Tonsillectomy under Local Anesthesia," by Bryan DeForest Sheedy, M. D., of New York.

All of the one hundred cases reported upon by the reader of the paper were examined several months after operation and no patient under fourteen years of age was operated upon under local anesthesia. There was no grouping of the patients examined as to whether the throat conditions were the result of operation under local or general anesthesia. The enucleation of the tonsils had been performed by some one of the many methods in vogue for the last few years for the complete removal of the gland and as the operations were performed in practically all the public institutions in New York City many men of prominence in Larygology were the operators, so that the results could not be attributed to poor technique on the part of one man.

The writer arrived at the conclusion that tonsillectomy, so far as removing pathological tonsils is concerned, is a better operation than the old time tonsillatomy, but pointed out that many of the throat defects following the operation of enucleation are due to clumsy and non-surgical technique.

The writer also pointed out the normal relation of the surrounding parts to the tonsil and put up a strong argument against the use of sharp instruments for the dissection of the tonsil from its bed, that being the cause of injury to the muscles with resulting deformities.

Of the one hundred cases examined months after operation more than 80% of the patients had deformed throats. The 20% of patients, with what appeared to be normal throats following the operation, were inconvenienced in no way at any time following the operation. Of the eighty patients thirty-four complained of speech defects for from one to three weeks after operation, sixteen complained of speech defects for more than three months after operation, while four had practically lost the singing voice. About 25% of the patents stated that their throats felt better and that they could speak and sing better after operation than before. Inability to use certain words had continued with 5% of the patients for more than six months after operation.

The varieties of deformities following enucleation were classified as follows:

(1) The pillars on both sides had disappeared with the soft palate tightened to such an extent that the opening at the naso-phaynx was narrowed.

(2) The pillars on both sides had grown together.

(3) The anterior pillar had wholly disappeared with a large amount of ciatricial tissue deposited on the posterior pillar.

In the four patents whose singing voice had been seriously affected the posterior pillar had disappeared through amalgamation with the anterior or with the lateral wall of the pharynx.

The reader emphasized the fact that he did not think the last word had been said in regard to tonsil enucleation and proposed as a remedy for preventing the unsatisfactory throat results an operation for removing the tonsil by what he called the "Eversion Method" and with charts and diagrams pointed out that the capsule of the tonsil is simply a bag, the bottom of which may be pulled through its mouth so that its inner surface becomes the outer and that if the capsule with its glandular tissue is everted and a snare placed on, removing the tonsil with its capsule

complete (there beng no dissection and therefore no injury to the muscles surrounding) there would be no deformities.

The exceptions to the rule presented viz., that the tonsil will evert on traction, were

(1) Those cases in which the capsule was bound down to surrounding tissues by previous attacks of inflammation.

(2) Those cases where the capsule was very much contracted and contained cicatricial tissue only.

(3) Those cases of hypertrophied tonsils which had been everted themselves and the tonsil was found everted when the patient applied for treatment.

The points advanced in favor of the procedure were:

(1) Simplicity of the operation.

(2) Practically no hemorrhage.

(3) Little or no deformity following the procedure.

(4) Only three instruments necessary for the operation, viz., Tonsil Tenaculum, blunt pointed tonsil knife, Tyding snare.

TRANSMISSION OF POLIOMYELITIS VIRUS.

William P. Lucas and Robert B. Osgood, Boston (Journal A. M. A., May 24), report some experimentations with human tonsillar and nasopharyngeal virus of anterior poliomyelitus in line with their earlier findings of it in the tonsils of recovered monkeys. They have demonstrated that the nasopharyngeal tissue of a recovered human patient retained the virus four months after a second attack and two years and three months after the first atack. They secured clear mucoid nasal secretion from tre patient, a boy 5 years old, six weks after his second attack and inoculated monkeys with the filtrate. Two of theme developed paralysis and died. The pathologic findings were typical of anterior poliomyelitis.

NEW ETHER PAD AND CONE.

Edwin M. Jones, Miami, Fla. (Journal A. M. A., May 24), has devised a new method for etherization, consisting of an oblong gauze pad with a hole 2 inches long by 1 inch wide in the center to fit over the nose. A cone similar to Esmarch's, without the handle, is used in conjunction with it. He claims for his device that it saves the anesthetic, does away with the use of petrolatum and protection for the eyes, protects patient from ether vaporous and enables administrator to gauge the amount given, and that it is cheap, simple and handily portable.

RECTAL HEMORRHAGES.

B. L. Myers, Omaha (Journal A. M. A., May 24), reports a methol used by him successfully, after other methods had failed, in a case of obsinate rectal hemorrhage following operation for piles. Taking a piece of gauze about 18 inches square he spread it in a single layer over a Kelly kelptoscope, rubbed petrolatum into it thoroughly and inserted the proctoscope into the rectum well past the sphincters. He then withdrew the obturator and packed the invaginated piece of gauze through the proctoscope with a 10-yard gauze bandage, withdrawing the proctoscope as the invaginated gauze was packed up. When the rectum was filled and the instruments withdrawn the loose edges of the invaginated gauze were twisted tightly together, binding the packing nto a hard mass. Thirty-eight hours later the packing was withdrawn without hurting the patent or starting the hemorrhage, by catching the external end of the bandage and drawing it out. The invaginated gauze collapsed and slipped out without injury to the mucosa or hurting the patient. There was no recurrence of the hemorrhage.

Wisconsin Medical Recorder

A Monthly Journal of Medicine and Surgery, devoted to the best interests of the profession

VOL. XVI JULY, 1913 No. 7

ON DIET

G. G. BURDICK, M. D. and THEODORE C. F. ABEL, M. D., Chicago

The taking of food into the body is the operation by means of which Nature supplies the energy needed for the many functions of the body, and also the material for its growth and repair. In its consideration we must take up not only the sanitary phase, the dangers arising from improper foods, the influence upon health of excessive or deficient quantities, but the physiological aspect as well. As all functions of the body, physical as well as mental, intellectual and moral, are manifestations of energy, the diet from which this energy is derived becomes of overwhelming importance.

Considering first the question of growth and repair, it is evident that food must contain the various elements of which the body is composed, and in sufficient quantity to serve this purpose. These pre-existing compounds are built up by the cells of the body from their elements as supplied in the food.

The ultimate elements represented in the body are hydrogen, oxygen, nitrogen, carbon, chlorine, fluorine, silicon, sulphur, phospohus, potassium, sodium, lithium, calcium, magnesium and iron.

The most prevalent inorganic compound into which these elements unite in the body is water, it forming about two-thirds of the bodily weight. Others are gases, as oxygen, hydrogen, nitrogen, carbon dioxide, ammonia, hydrogen sulphide, and methane. Sodium chloride is the most widely distributed salt; calcium phosphate is a good second. Other salts are calcium carbonate, calcium fluoride, sulphates of sodium and potassium, chlorides of potassium and ammonium, phosphates of potassium and magnesium; sodium carbonate and bicarbonate, hydrochloric acid, silica and oxide of iron.

The organic constituents are nitrogenous or non-nitrogenous, the former being most numerous. They are the proteins, albuminoids, ferments, glucosides, pigments and the many ammonia derivations. The fats and carbohydrates form the non-nitrogenous bodies.

It must not be supposed that all of the bodies named must necessarily be supplied in the food, as is sometimes assumed. On the contrary a great many of them are waste products, ashes from the fires of metabolism. Others again are indispensable, and take important parts in the body's work. Provided the various elements be supplied, it may safely be left to the cells to take them, as the builder uses his stones, and build them up into whatever compounds the body needs in its work.

Under normal conditions the amount of material absorbed from the food is about equal to that which is excreted, so that the bodily weight remains fairly constant. During the period of growth the amount absorbed exceeds the amount excreted, and the body gain weight. In many diseases, both

acute and chronic, and in old age, the waste exceeds the absorption and the body loses weight, or "wastes away."

The problem of the proper choice of food should not be a difficult one. Nature has provided us with guides in the form of the sensations of hunger and thirst, and the indefinite sensation known as "appetite." When more material is needed to keep the fires of metabolism burning brightly, hunger makes its appearance; when there is insufficient water to carry on the many chemical processes we feel thirst. And the sensation of appetite warns us against unfit or injurious food. So long as these sensations are normal and unperverted, all is well. But like all other sensations they may by long-continued improper habits be dulled, and become untrustworthy.

There is a good logical reason, based on sound physiological principles, for the usual arrangement of a meal. Beginning with an appetizing trifle, to cause secretion of the digestive juices by reflex action, the stomach is made ready for that which is to follow. The invariable meat with its accompaniment of vegetables, usually altogether inadequate as compared with the amount of animal food, is a tacit admission of the necessity of an antidote, taken with the poison, so to speak. And the dessert which follows supplies the need for carboyhydrates, while the beverages, often injudiciously chosen, fill the system's demand for water.

The proximate principles which must be present in a substance before it can be classed as a food are proteids, carbohydrates and fats, together with water and various salts, principally sodium chloride and calcium phosphate. It is not likely that any other inorganic salts are strictly necessary to the body, except iron, silicia and calcium fluoride. All the food-stuffs in common use, both animal and vegetable, contain the necessary principles. In some, one of them predominates, in others another.

But it was probably never intended by nature that the remains of dead animals should be used as food. It is no matter whether these animals are killed for food purposes, or die of other causes. It is not logical to begin with, for the very same principles which abound in meat also abound in vegetables in a much purer condition. For the flesh of the animals we use as food was built up out of these same vegetables, which the animal used as food. Why then, take them second-handed, mixed with all kinds of poisonous products of animal metabolism, when they can be obtained fresh and pure, as Nature intended they should?

This applies not only to meat, but to all animal products, such as milk, eggs and cheese. In all of them we have the same feature to contend with—animal extractives and products of death and decomposition. For an egg is just as much a dead animal as if the chicken it contained had been allowed to emerge from its shell and afterwards been decapitated with a hatchet. It is doubtful how long life persists in the embryo bird under ordinary conditions, but there is a limit, more particularly when kept for months in a cold storage plant.

Similar objections might be made against milk. This fluid is a secretion of the body, intended to nourish the young animal while unable to partake of more solid food. So long as it is taken direct from the mother's gland into the infant's alimentary tract, without coming in contact with the outer world, it remains part of the mother's living body until it is assimilated into that of the child. But when the milk is drawn artificially, exposed to the air, put into bottles, even though they be sterile, it ceases to be a living substance and becomes impregnated like any other dead animal material with the

products of decomposition. The only possible way in which cow's or any other animal's milk could fulfil the purposes it was secreted for, is by direct suckling, and as this is not practicable when the milk is intended for human consumption, its use is no advantage over meat. Even if this were practicable, cow's milk is fitted for the assimilative powers of the calf and not that of the human young.

Another common protein food of animal origin is cheese. Aside from the objection that it is a very concentrated food and taxes the metabolism of the body severely on account of the large amount of protein waste to be disposed of, its use is frought with more serious dangers. In no other food substance have the processes of decomposition progressed so far as in cheese, particularly in old cheese. That such substances as Limburger or Roquefort cheese are eaten with impunity by large numbers of people is no argument in their favor. We might quote ae a parallel the Esquimaux habit of burying fish until putrid, and then enjoying the same. The body is very accomodating, and a comparative tolerance may be created against ptomaines and other putrefactive products, as well as against opium or arsenic.

These four, meat, eggs, milk and cheese, are the most common animal products used as food, and neither one has a single point to recommend it, and many objectionable features, as already stated. Their only redeeming trait is richness in tissue-building material or protein, and this exists in ample amounts in such vegetable foods as bread and cereals.

But another important class of animal foods, though not coming under proteins, are the various soups and meat extracts. Attention has already been called to the fact that the most objectionable feature of animal foods are the products of tissue death, which meat contains in large quantities, and eggs, milk and cheese in lesser. Even if the meat were eaten in a living condition, as is the cruel custom of some savages, it still contains the products of the animal's metabolism of cell death, which is continually going on. To these products, bad enough in their way, are added the substances produced by the putrefactive changes which begin immediately after death. All of these poisons are soluble, and it would seem the height of folly to carefully extract them and partake of them in a concentrated form. Yet this is daily done in the preparation of soups, meat extracts and gravies.

There is a reason for this. These substances have the physiological action of stimulants, and are usually classed by chemists as the animal stimulants. They resemble, or at least many of them, the stimulating vegetable alkaloids, like caffeine, theine, and theobromine. As a matter of fact the xanthin group, which includes most of these animal stimulants, also contains the vegetable products named. Consequently a bad habit is formed, a craving established, not for the meat in itself as the individual believes, but for the stimulants it contains. They have the action of appetizers, and a plate of soup to begin the meal is no better or no more useful or no less harmful than a cocktail, which is taken for the same purpose.

Every meat eater will remember the insipid tasteless character of meat which has ben used for soup, in other words, has had its poisonous ingredients extracted, as compared with the appetizing odor and flavor of a roast or broiled piece, which has had its juices carefully preserved. Few realize that this same appetizing odor and flavor is due to poisons, and that the meat eater is really no better off than the habitual alcoholic or opium smoker.

To recapitulate, then, the use of all

animal products, but more especially the flesh of dead animals, for food purposes, is unhygienic, unhealthful and unnecessary, for the following reasons:

1. It is unhygienic, because the germs and toxins of any disease that may have afflicted the animal during life, will be present in its flesh or its secretions and cooking does not always destroy them, neither do the usual preserving methods.

2. It is unhygienic, because the putrefactive changes begin immediately after death of the animal and the product of these changes, while not perceptible or offensive at first, are nevertheless present, and act as poisons when ingested.

3. It is unhygienic, because the flesh, even during the life of the animal, contains the products of its tissue metabolism, which are poisons in the sense that they create a drug habit—an unnatural craving similar to that for alcohol or other habit-forming drugs.

4. It is unhealthful because the proportion of protein in all animal foods is in excess of the bodily needs, and thus the tissues and organs are forced to do extra and unnecessary work to eliminate the resulting cleavage-products.

5. It is unhealthful, because these cleavage-products, when present in amounts greater than can be conveniently eliminated, act as poisons to the system when absorbed into the circulation.

6. It is unnecessary, because all the proximate food principles present in animal food are also present in sufficient amounts and in much purer form in vegetable foods.

7. It is unnecessary, because vegetable food is abundant, inexpensive and stable, as comapred with animal food, which is becoming dearer and dearer all the time, owing to the increasing expense of raising, feeding, transporting and killing the animals concerned, and of suitably preserving the products for the market.

In our next article we shall take up the merits of the various vegetable foods in detail, and show conclusively by statistics and physiological facts that they are all that nature intends for the needs of the body.

REPORTS ON FRACTURES.

The Committee on Fractures of the American Surgical Association desires to have two reprints of any paper dealing with the non-operative or operative treatment of open or compound fractures which have been published within the last few years.

The committee also desires papers on the medico-legal relations of radiography to the diagnosis and treatment of fractures.

If authors on these subjects have no reprints, the committee would be pleased to receive memoranda of the places of publication of such papers.

John B. Roberts, M. D., Chairman Committee on Fractures, 313 S. 17th Street, Philadelphia.

IRON HYPODERMICALLY.

The editor of The Therapeutic Gazette, in his leading editorial in the issue of December 15, 1912, after giving due credit to Musser, Barlow and others for their use of soluble iron salts in this connection, expresses the view that remedies which have to be administered over a long period of time sould not be given hypodermically if it is possible to obtain satisfactory results when they are given by the mouth. It is, also, very questionable, whether the system will deal with iron which is placed beneath the skin as well as it will with iron which is ingested.

CAUSES OF FAILURE IN BACTERIN THERAPY

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There are many interrelated factors in the production of immunity, and numerous minute details requiring the closest attention, many of which, although apparently insignificant, are really the prime causes of failure. I have attempted to briefly outline and consider the commoner ones and those that experience has shown me are more frequently the cause of trouble which the average practitioner.

We may classify the causes of failure under the following general heads: incorrect bacteriologic diagnosis; improper bacterin, either stock, or autogenous; improper dosage, either size of dose or interval between doses; and lack of proper concomitant treatment.

Failures due to incorrect bacteriologic diagnosis.—In some cases it is possible to make a diagnosis clinically, but as the action of bacterins is specific, it necessarily follows that an accurate bacteriologic diagnosis is absolutely essential. With the possible exception of cases of furunculosis, an attempt at a correct bacteriologic diagnosis should always be made. This may, however, be impossible, as for instance where we have a deep seated abscess or it is for other reasons not feasible to obtain the infectious material. Then, further, the material obtained may not show or contain the causative organism; or, they may not be recognized, especially where there are several other organisms present. Though lack of bacteriologic knowledge and skill, the causative agent may not be correctly determined. Further, especially in chronic cases of the respiratory tract, the infection changes from time to time and it is necessary to make frequent examinations and change the bacterin as the infection indicates. Any of the above may result in an improper bacterin being given, and necessarily failure must result. This may all be summed up under the head of improper bacterin, due to incorrect or impossible bacteriologic diagnosis.

The bacterin. (1) Stock bacterins.—The stoc kbacterin used may not contain the proper strain. This the manufacturers of stock bacterins have attempted to obviate by producing what are known as "polyvalent bacterins," i. e., a bacterin containing a number of strains of the same organism; but this is in reality only a makeshift, because if ten strains are used and only one of them is the proper strain, the dose given is therefore only one-tenth of that particular strain, the other nine-tenths of the dose being composed of other strains and probably having no effect. While this may seem theoretical yet it is a practical fact. Further, the stock bacterin may not contain all of the bacteria causing the infection—may not be the proper mixture. It is advisable, therefore, in using stock bacterins to prepare your own mixtures. So far as is known, there is no definite disadvantage or objection, from a clinical standpoint to using a bacterin containing additional varieties of bacteria, except that the patient's cells are called upon to to produce antibodies, to these additional bacteria, which are without any definite curative value so far as the particular infection from which the patient is suffering is concerned. It may therefore be considered as merely an additional tax upon the patient's cells without any direct, immediate benefit.

Failure may also result because a stock bacterin is not properly prepared. It may have been heatel too high, so that its immunizing propertis have been destroyed, or the bacteria originally used in the preparation of the stock bacterin may not possess immunizing

powers. This we find is true in some cases in which old, avirulent stock cultures are used. The stock bacterin may be old, that is, it may be over-kept, as a result of which autolysis has taken place, and in certain infections this bacterin would be of no value, because recovery, or immunity, depends to a great degree upon the formation of lysins by the cells. If the bacterin has undergone autolysis, this response is not called forth. In certain other cases the bacterin may be under-kept, or as we might term it, "green," and autolysis not having taken place, a sufficient amount of endotoxins have not been liberated, so that the formation of anti-endotoxins, the principal immune bodies in some infections are not as speedily called forth as from the injection of an older bacterin of this same variety.

Again chemical changes may take place in the bacterin, owing to the dissolving of alkali from the glass, especially if it has been kept under improper conditions, at room temperature. On this account is is advisable to use Jena glass, and for this reason bacterins in ampules of Jena glass, or of the new Fiolax glass, which gives up even less alkali than the Jena glass, are to be preferred to bacterins in syringes, which are usually not made of Jena glass.

(2). Autogenous bacterins. These may not be prepared from the proper bacteria, or the predominating organisms may be one that does not grow very readily, and is therefore overlooked; or, the bacteria isolated from the infectious material may not possess immunizing powers, and further, the bacterin may not be prepared properly. It may be overheated, etc.

Dose.—The dosage may be too small. We therefore do not get a clinical reaction, the negative phase and the corresponding positive phase are very brief and the immunity does not rise very high. Such a condition does not produce the best of results and may actually result in failure, owing to the fact that this stimulation applied is not great enough. Or, the dose may be too large, resulting in the patient's immunizing forces being practically exhausted, with the result that additional large doses cannot call forth a further response. This is to be obviated by careful clinical observation of the patient and the giving of only such a dose as will cause a very slight clinical reaction, not increasing the dose as long as it continues to produce this slight clinical reaction. The frequency of dose varies, of course, depending upon whether the case is acute or chronic, whether a large or small dose be given; failures frequently result from the improper spacing of the dose. Especially large doses should not be given at short intervals. The attempt to produce a summation of positive opsonic phases is the ideal one; and the production of a summation of negative opsonic phasis is to be avoiled, as it usually results in failure.

Lack of proper concomitant treatment.—Lack of proper concomitant treatment, has in my experience, been the cause of the greatest number of failures, at least so far as it has occurred in those cases in which a proper bacterin was used. We may divide this concomitant treatment into general and local. General treatment consists in the proper control of the eliminative organs—renal and intestinal. Constipation, intestinal indigestion and fermentation produce toxic poisons that have an antiopsonic effect, and their formation anl absorption must be prevented. Further, the toxins produced by the infectious agent are destroyed by the spleen and the liver, and are eliminated by the kidneys, skin and intestines. The intestines are also known to eliminate bacteria, therefore we must keep all of these organs in the

best possible working order. One can readily understand that the cells of the body and the organs of elimination may be overtaxed in combatting the absorption of fecal toxic products, or at least so occupied that there is no reserve force capable of being stimulated by the injection of bacterins. Under general treatment also comes the treatmnt of general diseases other than the infection. We are always to search for certain constitutional diseases in every infection. An example that is familiar to all of us is the tendency to furunculosis in patients with diabetes. The mere injection of bacterins in these cases usually results in failure, and it is only by careful attention to and treatment of the diabetic condition that results may be hoped for. Further, in certain diseases, such as leukemia and leukocythemia, the leukocytes possess very little phagocytic power, and it is possible that although you may produce a high opsonic index in patients with these diseases, recovery will not occur, owing to the inefficiency of the leukocytes.

Local treatment aims at having foreign bodies and sequestra harboring the infectious agent, otherwise continued reinfection occurs. Healing will not take place as long as there is an infected foreign body in the tissues, so that surgical measures wherever indicated require prompt attention. Then, we may have a high opsonic index content of the general serum, but the local circultaion may be sluggish, or owing to local high pressure conditions, the opsonins may not have access to the local lesion. This is to be remedied by free drainage, or such measures as tend to produce a local hyperemia—the use of hot fomentations, Bier's hyperemia, Finsen light, manipulation, massage, etc. These, of course, will all tend to produce autointoxication and in certain cases are to be avoided. Especially is this true in tuberculosis. Tubercular patients should be placed in bed at absolute rest, as exercise results in autoinoculation, which if continued will have practically the same effect as a too frequently administered dose of bacterins.

The local use of antiseptics must be governed by the following rules: either a sufficiently concentrated germicide must be used to destroy all of the bacteria, leaving a sterile site, otherwise the destruction of tissue will merely augment the further action of any bacteria remaining that have not been destroyed or a mild antiseptic may be used, sufficient to inhibit the multiplication of the bacteria but not sufficient to destroy the tissues. Preferably, antiseptic solutions are to be supplanted by the use of Wright's 5 per cent sodium chloride, sodium citrate solution. This prevents coagulation and augments osmosis, thereby promoting the flow of lymph with its increased opsonic content. The lymphatic circulation may also be enhanced by the administration of citric acid, 30 to 60 grains three times a day, as advised by Wright.

There still remains a possible cause of failure in the lack of a sufficient number of active leukocytes. Exactly how this may be remedied is not yet definitely known. We can increase the number of leukocytes by the administration of nuclein, sodium cinnimate, pilocarpine, or salicylic acid, but we have no knowledge or direct evidence to prove that the phagocytic power of these leukocytes is normal. Personally I have used nuclein with apparent clinical success. This seems to me to be the most rational of the drugs mentioned, as it is a constituent of the leukocytes themeselves.

Failure may possibly also result from an improper selection of the site of injection. Our present knowledge would indicate that subcutaneous or intramuscular injections produce the best

results. Wright and Allen do not believe that intravenous injections are of value. They reason that the blood is not actively engaged in the production of antibodies, therefore the circulating streptococci in septicemias do not result in the production of immunity. that this is not a general rule, however, and will have to be definitely worked out for each organism, has been proven recently by the fact that in contagious abortion of cattle the best results are obtained by the intravenous injection of the bacterin. Whether this holds true for any other organisms, we do not as yet know.

There are some cases in which failure results for reasons as yet unknown. It is very evident that all infections, or all persons, irrespective of their infection, are not amenable to bacterin treatment. Some are incapable of rsponding. Bacterins will not proluce a cure in all cases, and the tendency of the times, owing to the apparently wonderful successes, is toward over-enthusiasm. We are repeating with bacterins the history of tuberculin—using them for everything, irrespective of the indications, and usually with a free hand, often without any definite reason, and in any disease, whether it be a proven infection or not. Cases are being reported of wonderful success; very frequently the number of cases is not mentioned, and the average clinician, without opsonic or bacteriologic control, is using any bacterin, in every sort of disease, and reporting wonderful results in one or two cases. He becomes over-enthused and passes this enthusiasm on to others, but many times they are doomed to failure. This is a very unfortunate condition, for bacterins are of value if thoroughly understood and rightly used, and do produce results in many cases that are nothing short of wonderful, and I sincerely hope that before long they will be sufficiently understood, their indications and limitations known and recognized —then they will ol tain and maintain their proper place in therapeutics.

COST OF DOING PRACTICE

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In every line of human endeavor we find two fundamental functions, buying and selling. These functions pertain to the professional man in the following manner. Physicians buy their instruction, books, instruments, office furnishings, transportation, drugs and supplies,, and sell their services. In every undertaking revenues are produced through salesmanship. Every profession as well as business has something to sell. Its financial success depends to a great extent upon the quality of salesmanship employed. Before anything can be sold it must be bought or procured, and the profit is the sum received over and above the cost of production and the expense of doing business. In the light of these fundamental facts it is evident that the physician who doesn't know what it is costing him to practice, cannot be considered a scientific businessman.

It is here that we find the first weak point in professional life. Very few professional men know what it costs them to supply their professional services. A physician may apparently be doing a large practice and at the same time not be making expenses, while, on the other hand, one with a very limited practice will make and accumulate money. It is very clear that if it costs a doctor ten dollars a day to practice, he must make considerably more than

that to insure him a living income.

One of the most common mistakes of physicians is to base their charges upon trip or set rates, without regard to the nature of the case or the time required. Thus we frequently find a man making visits for two dollars that actually cost him considerably more.

The first thing necessary in systematizing any business is to establish the cost of the product. Then it becomes an easy matter to estimate the selling price to insure a profit. There are two radical different methods of ascertaining costs. The first is to ascertain them after the work is completed. The other is to ascertain the cost before doing the work. The first method is wholly incorrect as it is based upon a single instance or single piece of work and cannot be used as a rule or standard for all similar cases. The second plan admits of getting at the real cost and covers all similar cases, be it one or a million.

The physician who desires to get his business on a scientific basis should take into consideration the cost of every item that is required in the conduct of his business. These items will vary with the location, class of practice, and the physician himself. The examples given are for the purpose of illustrating the principle, and must be adjusted to each individual case.

As an example, let us then consider the amount expended in securing a professional education. This being an investment, must bear interest, at the legal rate in the state in which the doctor is practicing. Supposing the cost of education to have been two thousand dollars, and the legal rate of interest in the state to be 6 per cent, then it is necessary that $120 be raised each year to cover the interest on investment in education. Then we have the office outfit, library, team and buggy or automobile, on which we must not only make the interest, but at least ten per cent for depreciation as well. If we have two thousand dollars invested under this head we must raise $120.00 for interest and $200.00 for depreciation.

Next we have office rent, telephone, office girls, postage, express and freight, drugs, bandages, labels, bottles, corks, stationery, magazines, books, wrapping paper, twine, medical journals, insurance (fire), heat, light, janitor, instruments, laundry and taxes. For the example we will call it one thousand dollars.

If we keep a team we must consider feed, care and shoeing, and repairs for buggy. If an automobile we have gasoline, tires, repairs, oil, carbide, etc., which we will estimate at three hundred dollars per year by way of the illustration.

In addition to the above in some rare cases it would be necessary to add commissions, income tax, etc.

Taking all the foregoing into consideration we find the expense or cost of doing business to be:

Interest on investment in education, $2,000, at 6 per cent.	$ 120.00
Interest on office and driving outfit, $2000, at 6 per cent.	120.00
Depreciation on outfit, at 10 per cent	200.00
Rent and other fixed expenses	1000.00
Maintenance of driving outfit	300.00

Here we have a cost of doing practice of nearly $150 per month. Now if the doctor requires $150 per month to cover living expense and reserve, he must have an income of nearly $3000 per year, or $250 per month. When we consider that a physician works about ten hours a day and collects on an average 75 per cent, we see that he must have at least one dollar an hour for his time. The fact is that we will have to have nearly three times that amount for the time he is actually engaged in earning money.

After settling the question of cost, the next thing will be to go over the books and locate the instances where practice has been conducted at a loss. Then make an increase to cover the loss and profit in future business.

In keeping accounts it is always advisable to enter the time spent away from the office on the visit. Thus the time consumed on the case can be in making up the amount of your bill rate.

Every physician should have certain office hours, and nothing but pressing emergencies and obstetrical cases should cause him to fail to keep them. It is generally best to have the calling hours in the early morning and afternoon, and the office hours near the middle of the day and in the evening.

Applying the Golden Rule of efficiency and the Gospel of no waste, no want, to your business. When you dispense Compound Cathartic Pills do not pour out a handful and put them in a box and hand them to the patient. It is better to count out the number that you consider the case requires, as you not only save pills but make a better impression on the patient. It is an easy matter to throw away as much medicine in this way of dispensing by the handful as you would use in your practice.

Get the miersocope of inspection to your eye and throw the light into every rat hole that your money has been slipping through. Too many physicians are like the lawyer on whose financial ability Lincoln was requested to report. Mr. Lincoln wrote, "He has a wife and baby that ought to be worth fifty thousand dollars. There is a table and a chair in his office. One leg is broken off the chair, and there is a rat hole in the corner of the room that will bear looking into."

Learn what it is costing you to do business and then charge enough to cover cost and a reasonable profit. That is the only way we can ever hope to reach a plane where the doctor will not be considered a poor business man as he is at present.

THE MECHANIST THEORY OF LIFE

By F. F. CASSEDAY, Ph. B., M. D.
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A witty philosopher in discussing Darwin's theory observed that it was just as easy for God to create man, as (to create) a money and far more creditable.

Despite the fact that Edison says that the human body is merely a meat machine there is another side to the question.

The industrial chemist and physicists are making tremendous strides in synthetic investigation and practice. The investigations of cell life have aroused the interest of the biologists and they are trying to wrest from protoplasm its life secret.

The query is can man create life? This involves the second injuiry are the human body functions purely chemical?

Investigators are lined up in two groups namely:—those who advocate the Mechanist theory of Life, and those who advocate the Philosophic theory of Life.

Search as they may the biologists, the psychologists, and the physiologists, cannot find an entity called "Life," which is apparently necessary or visible in the body, therefore they teach that our thinking, willing, feeling and even consciousness are merely the products of the activities of physico-chemical processes in the brain. They even go further and contend that man is

merely an automaton, that if we really understood the mechanism of his brain we could completely account for his conduct. This "Mechanist theory" has been advanced for many years under different names—it is no new thing.

Modern philosophers on the other hand are not mechanists.

Men of science in order to bring order out of seeming chaos place all phenomena in causative array. To bring mind into this catagory is however a pure assumption. To say because we cannot see "Life" therefore there is no "Life" is merely to jump a great abyss by an unwarranted assumption. The human body certainly carries on its activities in an orderly manner under the Law of Radiation but "Life" or the "Spirit" in dwelling in the living body while not interfering with the purely mechanical processes of the body yet certainly guides and directs the body as a whole, and determines in a large and broader way its place in the world, the scope of its activity as related to theoutside world, and safeguards it in every way. Without "Life" or "Spirit" the body would lack its initial an dcontinuing power to use and conserve the purely mechanical processes of the body.

Life is the spirit of God in man. Life is the psychic expression of God's spirit. There must be a first cause. Men of science are continually discovering new laws through the action of these laws. The existence of law demands a prime maker of law. Our Heavenly Father is the first cause, and life is the incarnate expression of God in man. Jesus Christ was the greatest Psychic the world has ever seen seen. Nowhere in his teachings or work did he claim to set at naught the normal processes of the body, but he did teach that there was a psychic force which if exercised under proper conditions and for the good of humanity would initiate life or endow the body with the living spirit or vital force, and add strength and vigor to the human body.

Materialism all through the years has tried to bridge this chasm by illogical assumption, but it is an explanation which does not explain. Remains of ancient and buried cities tell us that the temples and houses and implements found therein were the products of human hands. If there are products there must of necessity have been producers, if there are laws there must of necessity hav been a creator of those laws, a great First Mind and Fabricator.

Reason is a necessary adjunct of life in the human being. Without reason man would be no better than the brute. With reason man would be no better tha nthe brute. With reason he becomes a higher being able to alter his environment, improve his condition, and guide his body through life.

Even science has its limitations. We cannot lift ourselves by our boot straps, not yet.

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Almost instant relief is affored by the application of a hot, aqueous saturated solution of magnesium sulphate in rhus poisoning. The remedy is to be applied locally every five minutes for an hour, and repeated every three hours for an additional hour should the first or second application not afford relief, the remedy seems to act as a specific.

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When removing a dermoid cyst at the root of the nose don't forget that it may lad through the bone sutures to the meninges. Especially if the cyst or sinus is infected it is not wise to dissect it out deeply unless persistent discharge after removal of the presenting portion cannot be cured by cauterization, etc.—American Journal of Surgery.

MATERNITAS

By CHARLES E. PADDOCK, M. D., Chicago, Ill

(Continued from Page 172 June Recorder

Napkins.—Soiled napkins should be removed from the nursery immediately. They should be kept in a receptacle with a tight cover and washed as soon as possible. They should not be allowed to dry, but should receive a rough washing at the earliest possible moment, and then be put to soak in clear water.

For the final washing, hot suds and boiling for at least fifteen minutes are necessary. After this the napkins should be thoroughly rinsed and dried. Never put them on the child when they are damp. Under no circumstances should a napkin be dried and used again without washing.

Kidneys.—For the first day or two of its life the infant may not pass much urine. When it begins to get milk the urine becomes more abundant. The napkins must be changed as often as soiled. Strict attention to this matter will often save much trouble for the mother and irritation to the child. Erosions and inflamed skin about the buttocks often result from neglecting to change wet napkins.

During the second year a child that has been put to bed at six o'clock should be taken up between ten and eleven to urinate.

For the first three years wetting the bed may be considered a normal phenomenon, and, in fact, it may be untrue to say that a longer continuance of it is abnormal. Physicians are often consulted by mothers for this habit in children between five and twelve years of age, and, if nothing wrong is found on examination, there is no cause to worry.

Do not punish the child, for if the habit comes from indifference the child will soon become ashamed of it. Give such children plenty of fluids in the day, but none after four p. m. At eleven o'clock it is advisable that the child be taken up and allowed to urinate. Should there be no amelioration of the trouble after the third year, a physician should be consulted in order to be sure that there is nothing seriously wrong.

Circumcision.—This operation is not necessary in all cases. In fact the fad of a few years ago of circumcising every male baby has now given place to conservatism in this respect. When the foreskin is short, and easily retracted, there can be no reason for the operation other than a religious one. The physician will instruct the mother in the care of the foreskin, as it is necessary that cleanliness of the organ be maintained, Later the child must be taught the importance of continuing this treatment.

Exercise. — Besides the massage which is given after the daily bath, the baby should be allowed the exercise which it obtains by kicking, screaming, waving its arms, etc.; therefore, the clothing should not be so tight as to restrict its movements. Some time during the day, all its clothing being removed for fifteen minutes, the infant should be given free use of its limbs in a warm room, upon a bed where it may kick and play.

Babies have nerves, the same as grown people, and the less they are excited, the better it is for them. It is a well-known fact that babies of the poorer classes are less nervous than those of the rich. This is partly due to the fact that mothers are too busy with other work to be continually entertaining and exhibiting them. If left alone, they find enough to amuse them. To be continually tossing the baby, showing it new things or making a noise to amuse it, is excitement, not play, and what the child needs is rest,

especially if it has inherited a nervous temperament.

Crying.—Babies will cry, and a cause cannot always be assigned. If a baby cries one hour every day it may be considered normal, as crying is often good exercise.

When the baby cries from pain,, the character of its cry is sharpe and piercing; it generally shows distress by drawing up its legs and by other manifestations. The child will fall asleep when exhausted and soon awake, often with a scream. The cry of indulgence is the one with which we are most familiar; the infant cries to be rocked or carried, or for the gratification of some bad habit which it has formed. If it stops crying when the want is gratified, and cries again when the object is taken away, you may know that this is the cry of indulgence. The treatment of such a case is to let the child cry it out. Hours may be required but the rebel will be conquered. A second discipline may be needed, but a third is rarely necessary.

It is surprising how soon some young mothers detect the difference in these cries, and it is quite important that they should be able to do so, as they can then institute the proper treatment.

The cry of hunger is a worrying, fretful cry, and the baby usually commences a vigorous sucking of the fists. It stops when the hunger has been satisfied.

The cry of indigestion is often mistaken for hunger and while the crying may cease when given the food, it comemnces with increased vigor after the feeding.

When the baby cries see that the clothing is warm, that the napkin is not wet, or that the feet and hands are not cold. Through fear of causing a rupture many mothers spoil their babies by taking them up and otherwise indulging them. Crying will not produce a rupture if the binder be properly applied.

The Nursery.—A nursery which has sunlight, fresh air and quiet should be selected. A southern or eastern exposure is preferable. During the first year the average baby spends three-quarters of its time here, so the necessity of sunshine is evident.

The air should be kept as pure as possible, and there should be no plumbing in the room. There should be no dark shades at the windows, but no other hangings that cannot be washed. Let the floors be bare except for rugs. Twice a day the room should be thoroughly aired, the baby having been removed in the meantime. The temperature of the nursery should be about 68 degrees F., never above 70 degrees F. During the first two or three months it should never be below 65 degrees F. Even at night the temperature for the first few months the temeprature should not be below 65 degrees F.; after the first year it must be much lower. The child who is kept in a room that is too hot, perspires freely and takes cold easily.

For accurately gauging the temperature it is important that the thermometer be hung close to the bed of the baby, as there are such great variations in the temperature of different parts of most rooms.

In order to overcome excessive dryness of the inside air in winter a shallow receptacle filled with water should be placed in the nursery. Especially is this true in apartments heated by steam or hot water.

Going Out.—The time when the baby shall first go out of doors depends upon circumstances. In warm weather a healthy infant may be taken out at the end of the second week, but it must be at least a month old before it can go out in winter. Begin by airing the room with the baby in it, and then after a few days take the baby out

doors . In cool weather it should be kept in the sun and out of the wind.

In summer the baby should be out most of the day, except in the extreme heat of the day, and in inclement wather. In the winter and early spring, the outing may be between the hours of ten and three, according to the weather. If under three months of age, it should not be taken out when the temperature is below freezing.

Fresh air is absolutely necessary to the health of the baby. It stimulates the growth, purifies the blood, aids digestion, improves the appetite. If possible let the baby sleep out of doors, especially during the warm weather. It will be stronger for so doing. Young infants living in cities should be taken to the park daily and given the benefit of the pure air found there.

Nursery Maid.—The selection of a nursery maid is often a difficult problem; there are so many qualifications necessary that it seems almost impossible to obtain the proper person. She should be intelligent, experienced, kind, cleanly and healthy. There is no economy in selecting one who does not combine all these qualities; if you are compelled, however, to have one less desirable, it is your duty to teach her. See, for instance, that she is neat, that her teeth are brushed three times a day, that she has a daily bath that she never puts her finger into the baby's mouth, and that she understands why she should not taste the baby's food by putting the rubber nipple into her own mouth. Let her wear a uniform or dress which can be changed frequently and washed. If obliged to keep neat and clean the nursery maid is inspired to do better work.

In the girl you are about to select to be with your baby night and day, health is a necessity; she should be physically sound. A girl with poor teeth, for instance, cannot have good health; she suffers from indigestion, bad breath, etc., she is not the proper person to take care of your child. When making your selection, send your nurse to your physician for a thorough examination. She may have an incipient tuberculosis, a bad heart, or something which you might not detect, and which would be a detriment to the welfare of your baby.

If, however, a paragon is finally procured who is willing and able to devote herself exclusively to the baby the mother should not ignore her own obligations to the child by surrendering all her own responsibility. As a matter of fact, any day on our walks or in our parks we can see evidences of the indifference with which some mothers are giving up the care of their children to incapable and otherwise undesirable nurses.

Nursery Fence.—Very helpful to the mother when the baby must be left alone occasionally is the nursery fence, which can be put up in almost any room in the house, with little trouble. This fence can be purchased or one can be made. It takes up small space when not in use as it is made to fold up.

The purpose of this fence is to keep the baby in a small inclosure where it cannot harm itself or injure articles in the room. When the baby begins to sit up the mother will find it very convenient; she can place the baby in this inclosure upon a rug with whatever toys are necessary. A baby left to play by itself in this way is well off, and gives little anxiety to the mother.

Playthings.—Toys amuse the baby temporarily but it soon tires of them and wants something else, and the more you get, the more the baby wants. It is unnecessary for the first few months to amuse an infant by toys. The baby will often amuse itself by playing with its own feet and hands, and by watching the nurse and mother

about the room. When the baby begins to creep and walk toys are useful, but care should be taken in their selection.

The baby naturally puts everything into its mouth, therefore articles must be chosen which can be cleaned by washing and which are not rough. Allow no painted toys or toys with sharp points, or small articles which might be swallowed, such as marbles, buttons, safety pins. After the age of two years all toys should be selected, not only for amusement, but for educational value. A few toys, well selected, are of more value to the child than many ill chosen ones.

Beware of toys sent in by the nighbors; they shuold not be used if sent from a home where there has recently been any contagious disease.

Carriage.—The baby carriage must be selected with the idea of comfort for the infant. Therefore it must be roomy with strong but sensitive springs and must have a top which will protect the baby from the sun and draughts.

A strap which completely encircles the waist of the baby and fastens to either side of the carriage, affords more safety than the usual straight strap.

Sucking Habits.—On no account should the baby be given the pacifier or rubber nipple to suck. The habit is soon formed, and it is an uncleanly one. It certainly leads to infections of the mouth.

Sucking the thumb or finger is another habit which must be controlled early. Frequently the mouth is dreadfully disfigured from the pressure which the bones were constantly subjected to by this habit. Also the finger or thumb ceases to grow and becomes a deformity which will be a source of sorrow to the mother and the child. In very early cases tying the hands down or putting on mittens will suffice to cure the habit.

Dirt-eating calls for the advice of the physician. It usually shows that the child is not in good health.

Bow-Legs.—Young babies are usually what is termed "bow-legged," but their little limbs straighten out as they become older, and the apparent deformity disappears.

Bow-legs appearing about the time the child begins to walk are not so much due to the weight of the child's body, as to malnutrition from improper food. It is surprising to see the beneficial effect upon such children of proper food. Legs which have been considerably deformed will become straight in a few months.

Kissing.—Do not allow kissing especially upon the mouth. From this practice many children have contracted infections, such as tuberculosis, diphtheria and numerous other grave diseases. If it is necessary to kiss children, let it be on the forehead or cheek, but there is danger even in this.

Relations to the Physican.—The mother should obey implicitly instructions given her by the physician, and before any changes are made in treatments he should be consulted.

Teach the baby early not to be frightened by the physician. Such expressions as "The doctor won't hurt you," or "If you don't stop we will send for the doctor," cause the baby to fear him.

The child should be instructed as soon as possible to open its mouth and put out its tongue. In times of sickness a child who can and will do this has a great advantage over those who will not.

(To be Continued.)

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In cystitis cases with acid urine one of the best drugs to reduce acidity is potassium citrate in ten grain doses.

MISCELLANEOUS

ON CONSISTENCY.

By George L. Servoss, M. D., Gardnerville, Nevada.

Although admitting the bacterins, or bacterial vaccines, to the list of N. & N. R., our friends of the Council on Pharmacy and Chemistry now come forward with a series of articles in the J. A. M. A. in which they tell us that we must be very careful regarding the use of these products and that the ones made by the manufacturers of such products should be employed with fear and trembling. In a late issue of the J. A. M. A., in the reading pages devoted to papers read before the A. M. A. they publish one by Sollman in which he takes exception to the bacterins of the manufacturers, saying that the autogenous products are to be preferred (which no one questions) and a little farther on the Council allows the listing of a full line of the ready made vaccines.

Sollman tells us that we are not warranted in the use for the streptobacterin in guarding against scarlet fever, owing to the fact that the exact cause of the disease is unknown, but despite the fact that such phophylactic measures have been followed by satisfactory results in the overcoming of epidemics of the disease. This has been proven very satisfactorily in several Russian villages. In fact, in these villages, the results have been very remarkable, if the published reports are true, and there is seemingly no reason why they should be questioned.

Not a word is said derogatory to the use of the typhobacterin as a preventative, or as an agent to obliterate the carriers of the disease. Probably for the simple reason that it has been pretty well proven that this agent is a safeguard against the disease, and especially in the armies of the world.

As usual, it seems to be the manufacturers of these products, rather than the products themselves, that come in for censure. The products themselves are not questioned, but the packages are found fault with and other little things of very small moment brought forward. The question of the use of mixed bacterins is brought forward and their use is charged up to the manufacturers; no fault being found with the doctors who have suggested just this thing themselves, and long before the idea entered the heads of the makers of these products. I have taken occasion to read the literature of most of the houses making bacterins and in not a single instance have I seen any of them even suggesting that the vaccines should be employed except in the face of known conditions. It has been from the pen of the doctor that we have received the suggestion to use the mixed bacterins when the infection present has not been absolutely known or determinable. I have not seen a single house, in its literature, suggesting other than a mixture of bacterins made at the time of injection, but I have seen, in some of the text books on the subjects, directions given to use just such mixtures.

Now if the Council is going to find fault with these products they should be consistent and not allow of their listing among the New and Nonofficial Remedies. It does not look well, on the face of it, to allow of one thing in one column of the J. A. M. A. and something directly opposed in another. If, for any reason, these vaccines are not acceptable to the members of the Council (we mean those of the manufactuerrs), they should not be allowed within the N. & N. R. list, that is if the Council would show consistency.

There are some good reasons for the acceptance of the bacterins of the

manufactures in preference to those of an autogenous character. The former are made under the best conditions possible. The factories in which they are manufactured are surgically clean. All containers and apparatus are sterile and the finished products are wararnted to be clean, absolutely. But how about the autogenous bacterins? I have seen such finished products made under any but cleanly conditions. The suroundings have been those of the doctor's office and without regard to other than possible cleanliness of self. Neither apparatus nor containers have been subjected to the sterilization given them by the manufacturers. The maunfacturers knows that he cannot afford to put a non-sterile bacterin, or any other biologic product for that matter on the market, and retain his patronage for any great length of time and the additional care in the manufacture of these products not only means their superiority, but additional business and profits for the maker. The fault found with the packags is not one of great moment. On looking over the various lists of the manufacturers we find that the average dose of any bacterin costs about 20 cents and that dose is packed in sealed ampules or other aseptic containers, warranting the non-presence of other than the sterile vaccine. This is not an excessive cost to either the doctor or patient and it is better that both pay a litle more for the product and be assured that it is absolutely clean. It is true that a bacterin in a syringe container costs some more, but even then the additional cost is not such as to warrant much fault being found therewith when one takes into consideration the additional safeguard against infection from the use of a dirty instrument in connection with a cleam ampule or other clean container, as put out by the manufacturer.

It is true that we should know just what infection we are about to meet when employing the bacterins, else we are not scientific in our practice, but the manufacturer of bacterins should not be blamed with the things first suggested by the doctors themselves. Primarily, every bacterin was made as a simple, or from one species of bacteria, and the manufacturer insisted that such a product be employed only when the conditions were known absolutely. Along came the doctor who advised the use of mixed bacterins (and frequently it happened to be a man recognized as an authority), and the manufacturer, to supply the demand, began making mixed bacterins. He did not do this because he considered it good practice, but simply because the doctor demanded products of this sort. He cautioned the doctor against such practice, advising that the mixtures of the simples be made at the time of use, as one would meet the indications with simple drug remedies. Therein did the manufacturer err, as he has done so frequently in the making of polypharmacy medical mixtures. He simply accepted the demand, regardless of the fact that he knew better within his own mind.

I have gone over the literature of practically all the makers of bacterins and other biologic products and have found such to be simply the reports of doctors who have done research work, or who have written text-books upon the subject. The manufacturers, as a rule, have been careful not to give the bacterins a greater place than was warranted by the reports of the clinicians. In fact, as a rule, the makers of these products have had little to say of their own accord. They have simply insisted that their products have been made under the best conditions possible, giving the dosage and indications and let the matter rest.

We might as well say that the doctor should make his own serums and

antitoxins from the infective agents found in each individual case, but the Council does not insist upon anything of that sort, as it knows that such would be an impossibility. It is a known fact that no two cases of diphtheria are absolutely identical, in so far as the infection may be concerned, but still a stock antitoxin seems equally effective in practically every instance. A stock antimeningitis serum is likewise effective in the majority of instances. Nothing is said about the excessive cost of such products. In fact, but little, if any, fault is found with this class of remedies. They cannot be made extemporaneously, as needed, and we are obliged to rely upon those who are properly equipped to make them for us, and in consequence we do not question them in the least. Were it possible, however, for the doctor to make a serum or antitoxin overnight, as is the case with the bacterins, it is very probable that the worthy Council would tell us that stock articles of this sort were not worthy of use.

Like the Council and those who wrote the series of articles which recently appeared in the J. A. M. A., I believe that the infective agent should be known absolutely before a bacterin is employed, but if the infection is recognized I can see no reason why the pure stock bacterin should not be employed. Its use would seem as consistent, in my mind, as is that of antitoxin when the Klebs-Loeffler bacillus has been demonstrated as present. The use of one would seem as scientific as the other.

If the Council is to be consistent it should either quit the publication of articles derogatory to the use of the stock bacterins, or else cease allowing the entrance thereof within the N. & N. R. list of accepted remedies. Let it do one thing or the other, so that we may know just exactly how we stand in the matter. If the bacterins, as made by the recognized manufacturers, are not worthy of use, as is suggested in the articles appearing in the J. A. M. A., then let them be omitted from the N. & N. R. list. If they are worthy, then let us have a cessation of these articles, other than to warn us to employ such products in the face of known conditions. At any rate, let the Council be consistent in its assertions, one way or the other.

AN OBSOLETE SOCIETY.

By Wm. F. Waugh, M. D., Chicago, Ill.

We have too many societies. It gets to be a burden on one who likes to keep up, and aid in any praiseworthy object for which his fellows band together; but in time the multiplicity of societies becomes onerous. Each of these takes a few dollars from one's purse, and takes the doctor from his work—and believe me, when a doctor gets the reputation of neglecting his patients to attend society meetings, he is like the one who gets into politics, and is off to Springfield just when the woman has her baby. And if there be an unpardonable sin it is this.

The worst of it is that these societies never die—or at least they are never buried even though they lose their vitality.

An instance is the Association of Medical Colleges, whose late sessions the writer had the pleasure of attending. This organization was formed for the purpose of bringing together the active men of the various medical colleges, to compare views and obtain mutual improvement; also to advance the standards of medical education, etcetera. For a time it seemed that the society filled a useful and very important place, and would bring about many needed improvements in the course of study. But in all departments of its

work the association has been superseded by the Council of Education of the A. M. A., and it is difficult to see any justification for the continuance of the former organization.

Three significant items—the association accepted without question the classification of medical colleges made by the Council, with all its glaring inaccuracies and injustice, its undisguised intention of destroying American medical education as it has developed, and replacing the independent schools by government institutions. Then the association suspended one of its own members on the report of the secretary of the council, without making any investigation whatsoever for itself. And last but most astonishing, the association was passing a resolution when somebody suggested that the matter was not just in accord with an action taken by the council, whereupon the association voted to pass the resolution, to be worded in accordance with whatever might be the council's action!

DRY HOT AIR TREATMENT.

By J. A. Burnett, M. D., Hartshorne, Okla.

In a personal letter to me Dr. F. P. Claycomb of Santa Ana, Calif., says the dry hot air treatment is beneficial for what is termed cold rheumatism, bronchitis, asthma, etc. He considers the hot air apparatus a valuable instrument for physicians that devote special attention to chronic diseases and office practice, the very thing I am doing.

A hot air apparatus is not portable, hence it is especially adapated to office practice. Again it takes considerable time to give a dry hot air treatment which causes it not to be very popular with any one that is doing mostly a calling practice which further adds to the value of the office practitioner.

Dr. E. L. Gleaves considers the dry hot air treatment of much value in albuminuria of pregnancy and in uremia. It certainly deserves a trial in puerperal convulsions. I was once acquainted with a physician that claimed he cured all his cases of dropsy by the dry hot air treatment.

With other proper treatment dry hot air would no doubt cure the majority of ordinary cases of dropsy. Dropsy is a condition that I am very much interested in and I like to treat it. I find the majority of physicians give poor results in cases of dropsy.

In cases of obesity (excessive fat) the dry hot air treatment is of value as much as 10 pound reduction in weight per week has been accomplished. Obesity (excesive fat) is oposite to anemia (excessive lean or poor), one is a departure from health the same as the other. However most all fat people consider themselves in good health.

When we consider that water boils at 212° F, that 170° F moist heat is all the body will tolerate and with a good hot air apparatus dry heat up to 500° F can be used for one hour or longer. We can readily see that dry hot air treatment is something out of the ordinary and as a therapeutic agent is very far superior to the Russian Turkish hot springs, mineral springs and all other forms of wet baths.

In order to give a dry hot air treatment one must have a costly apparatus made for this purpose. It is heated with electricity, gas, gasoline or alcohol.

The hot air apparatus has no comparison with a vapor bath cabinet. The hot air treatments are not for laity use but are given by a physician or by a trained nurse by the physician's orders.

If the public knew the real value of the hot air treatments all the hot springs would go on the "bum" for all and much more can be accomplished in any and all diseases with a hot air

apparatus than can be accomplished at the hot springs.

Some physicians object to the hot air treatment for the reason they claim that most patients do not want to pay what it is worth to give the treatments. If a patient goes to the hot springs they certainly pay for everything. They could stay at home and get better treatment for half the expense and thus pay the physician all he would want to charge them.

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DR. AMERICAN EASY MARK AND THE GERMAN HIGHBROWS.

By Frank F. Casseday, Ph. B. M. D., Portland, Oregon, U. S. A.

Friedman's trip to the United States was the logical culmination of the easy complaisance and free money spending proclivities of the average North American physician, and the ability of the German physicians to put something new over on the aforesaid Easy Mark Doctor from the great U. S. A., and simultaneously therewith to separate the American disciple of Aesculapius from some of his good geld.

It is said that most of the German doctors in the larger cities make their living by giving lectures to alien physicians notably Americans. Some Americans go to learn or try to learn something really worth while, some go merely to say they have been abroad, some spend years in the good old German style, others go and take the short course "while you wait" method of absorbing German lore, so it transpires that the foxy German teacher gives courses of lectures short, long and medium, for he needs this good, easy American geld, and the American is not very particular so long as his rare and beautiful lectures have the real "Made in Germany" flavor.

They warm over the old fads and work off new ones, they cut frills, and put fancy German lace trimmings on old operations, or whirl a patient in a swivel office chair to make him sea sick, or chair sick, and then gravely put this out as a very smooth way of determining the condition of the equilibrating apparatus in the inner ear. Great is Diana of Ephesus. There is money in the scheme.

And so it came to pass that a certain American promotor went to Germany and spread the glad tidings that the best way was to go right to the United States of American and pick up the easy money in the streets.

He came, he saw, and he went home with some money, but the American doctor has received a hard jolt. He came to, sat up and took notice that this was the same old game, the only difference being that heretofore the American has gone to the game, but now the game comes to him. The American doctor indignantly refused to be a party to the scheme, but the stuff is being sold to the poor people nevertheless.

When you stop to think of it the whole thing is a mean trick on the American doctor. He has been feeding the festive German "Professor" lo these many years, and now one of the amiable guild comes right over, camps in the home pastures of the U. S. A. doctor and revels in the high grass and extra good feed. It is to laugh. Great is the gullible American doctor in search of foreign medical lore.

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Ordinary facial herpes may be quickly subdued or aborted by means of alum. A saturated aqueous solution may be used, or a crystal of alum may be carried about by the patient and applied to the vesicles previously moistened, several times during the day.—The Prescriber.

HYPODERMIC MEDICATION.

By John Albert Burnett, M. D., Hartshorne, Okla.

I was licensed to practice medicine Dec. 16, 1902, and have been in practice ever since except what time I have been attending medical colleges. During this time in general practice I have met with most all the common diseases and diseased conditions or symptoms, etc. I say the most troublesome condition I ever met in practice is vomiting. Of course we are told that vomiting is not a disease but a symptom. Our "great" authorities tell us in cases of vomiting seek the cause and remove it, which only exposes their ignorance. Others tell us to use so and so when the tongue is broad, pallid, narrow, pointed, red or coated white, etc., which is all an illusion and has never relieved a single case in my practice.

In 1906 when I was practicing at Cecil, Ark., I was called in a family that had two boys about 4 and 6 years old. The father said they were so bad to vomit when they took medicine he could hardly get anything to stay down.

He decided it was mental influence and told his wife he would give them a spoonful of water and tell them it was medicine and see the effect. He said they vomited just the same as if an emetic had been given.

I often see patients who say they cannot take pills but this is a mistake unless they have a deformed throat for any one knows a normal human being can swallow quite a large object if they try . It is only a mental condition in these parties same as the case of the boys just mentioned.

I have attended patients taken with a ing and prescribed and later on he called again and said the remedy was not retained long enough to do any good.

Hypodremic medication is the thing in all cases of vomiting. If the patient refuses a hypodermic the physician should refuse to treat the case. Hypodermic medication is the most positive way of using medicines that is known to the medcal profession. We can get results from medicines used hypodermically that we cannot get by any other mode of application with the same drug.

THE X-RAY AS A HEMOSTATIC.

By Wm. F. Waugh, M. D., Chicago, Ill.

Triboulet describes (Ann. de Med. et. Chir Infant, 1 Jan., 1913) the case of a child aged 7 years affected with obstinate epistaxis, purpura, and other hemorrhages. It was not hemophiliac. Abdominal pains were marked. The spleen was enlarged. The blood examination showed red corpuscles, 2,800-000; white, 15, 700; polynuclears, 86 per cent; mononuclears, 4 per cent; lymphocytes, 10 per cent. Treatment was given for forty days without avail. The blood then showed red corpuscles, 2,800,000; white, 28,000; polynuclears, 78 per cent; lymphocytes, 18 per cent; mononuclears 4 per cent.

The x-ray was then applied over the spleen and the tibia, three times. "The effect was as sudden as remarkable." The epistaxes ceased, the purpura disappeared, and the little patient quitted the hospital on the fortieth day after the first irradiation in a state altogether satisfactory." Two months later the blood showed red corpuscles, 4,960,000; white, 5,200; polynuclears, 67 per cent; mononuclears, 6 per cent; lymphocuytes, 27 per cent.

"A priori it did not appear logical to utilize the x-ray to excite hematopoieses since Oettinger and others observed, in the course of treatment of leukemia by the x-rays, an anemia quite intense; and Aubertin showed that, besides the alterations of the

leutocytic formula, the subjects treated by the x-ray presented usually a considerable diminution of the red corpuscles. But in these cases we have to deal with the results of intensive treatment, or of repeated exposures to the rays, daily, that is, the absorption of very strong doses. Besides the neoplastic cells that are destroyed by large doses, those less intense determine, as Marie and Clunet have demonstrated, phenomena of radioexcitation; the cellules of hematopoietic organs react them, and the feeble doses stimulate their functions. Ashed and Bayer showed that, when irradiating the spleen with feeble doses we act on the metabolism of iron, mobilizing that which is retained in the spleen, and activating its transformation into hemoglobin.

Four radiations were made, two over the spleen and one over each femur. At each the hard rays (marking 7 or 8 Benoist) filtered with 2 millimeters aluminum. The total dose at each irradiation, on July 16, 18, 20, and 26, reached a maximum of 2 units H.

AMERICAN PROCTOLOIC SOCIETY

Fifteenth Annual Meeting held at Minneapolis, Minn., June 16 and 17, 1913. The President, Dr. Louis J. Hirschman, of Detroit, Mich., in the chair. Officers elected for the ensuing year: President, Joseph M. Mathews, M. D., Louisville, Ky.; Vice-President, Jas. A. Mac Millan, M. D., Detroit, Mich.; Secretary-Treasurer, Alfred J. Zobel, M. D., San Francisco, Cal. Executive Council: Louis J. Hirschman, M. D., Detroit, Mich.; J. Rawson Pennington, M. D., Pittsburg, Pa.; Alfred J. Zobel, M. D., San Francisco, Cal.

The following were elected Associate Fellows of the Society: V. Lee Fitzgerald, 17 Batley St, Providence, R. I.; J. M. Frankenburger, Rialto Bldg., Kansas City, Mo.; Wm. H. Kiger, 308 Consolidated Bank Bldg., Los Angeles, Cal.; Walter I. Le Fevre, 218 Lennox Bldg., Cleveland, Ohio.

The following is an abstract of the principal paers read:

President's address, Proctology and Procto-Enterology. By Louis J. Hirschman, M. D., of Detroit, Mich.

He stated that, "Proctology come into its own," is in reality the study of the entire intestinal tract, its diseases and their remedies. A Proctologist becomes skilled to a high degree in the medical and surgical treatment of the diseases of the lower bowel. A medical practitioner, sufficiently skilled and competent to treat diseases affecting any portion of the intestinal tract, should be competent to treat all portions. The modern Proctologist, therefore, must be an intestinal surgeon. He must have some knowledge of modern views and discoveries bearing on the digestive tract, as they have a direct baring on intestinal function and pathology. He should no more limit his activities to the rectum and sigmoid alone, than does the larygologist to the larynx, or the urologist to the urethra.

An arbitrary line of division which limits a specialist's activities to the lower six or eight inches of the colon is absurd. The Proctologist has no moral right to withhold his special skill in intestinal surgery from the patient who suffers from diseases of the small intestine or upper colon. The larger problems of intestinal stasis, chronic inflammatory conditions, and malignant diseases of the small and large intestines, demand the best that is in every Fellow of our organization. He should ever study and fathom out the problems of etiology, pathology and proper therapy.

The establishment of a section on Gastro-Enterologist and Proctology in the American Medical Association would greatly increase the value of

that organization to everyone of its members who comes in contact with diseases of the alimentary tract.

It is the American Medical Association which should foster all that is new and valuable in medicine. It is the greatest medical educational institution in our country; and the Fellows of the American Proctologic Society should be the most enthusiastic supporters of such a section, if established.

Memoir of James P. Tuttle, New York City, N. Y., and Memoir of Louis Straus, St. Louis, Mo. By Joseph M. Mathews, M. D., of Louisville, Ky.

These memoirs were inspired by precious memories of close personal association with the late Fellows of the American Proctologic Society, who were both charter members of that organization. In well chosen and deeply sympathetic words the noble character and high professional worth of these lamented Fellows were outlined in a manner which did honor to their memory.

A Review of Proctologic Literature from March, 1912, to March, 1913. By Samuel T. Earle, M. D., of Baltimore, M. D., Chairman of the committee on the same.

In this review of Proctologic literature Earle quotes freely from the following authors:

Dr. Edward H. Goodman, of Philadelphia, Pa., (Progressive Medicine, December, 1912, page 100) quoting from Ageron, (Archiv f. Verdauungskrankheiten, 1911, XVII, page 584), "Constipation."

W. Ernest Miles, F. R. C. S. England, (The Glascow Medical Journal, No. 11 February, 1912, page 82), "The Treatment of Carcinoma of the Rectum and Pelvic Colon."

H. Graeme Anderson, M. B., Ch. B., F. R. C. S., (British Medical Journal, 1912, Vol. I., page 129), "Solid Carbon Dioxide in the Treatment of Hemorrhoids."

Dr. Walton Martin, New York City, (Annals of Surgery, Vol. LV., 1912, page 901), "Carcinoma of the Rectum: Combined Abdominal and Perineal Rectectomy."

Harison Cripps, F. R. C. S. England, (British Medical Journal, 1912, Vol. 2, page 843), "The Treatment of Rectal Cancer."

Dr. William J. Mayo, Rochester, Minn., (Annals of Surgery, Vol. 56, 1912, page 240). "The Radical Operation for the Relief of Cancer of the Rectum and Rectosigmoid."

Mr. Lockhart Mummery, (British Medical Journal, Vol. 1, 1912, page 1427), "Recorded Cases of Intractable Constipation Treated by Operation."

Dr. Arthur W. Elting Albany, New York, (Transactions of the American Surgical Association, 1912, Vol. XXX., page 176, "Treatment of Fistula in Ano with Special Reference to the Whitehead Operation."

Dr. Alexis V. Moschowitz, New York City, (New York State Journal of Medicine, Vol. XII., No. 11, 1912, page 654), "The Pathogenesis, Anatomy and Cure of Prolapse of the Rectum."

Dr. William C. Lusk of New York City, (Annals of Surgery, January, 1913, Vol. LVII., No. 1, page 106), gives a description of, "An Instrument for Establishing Fecal Drainage, with a Report of its Use on a Case, and a Consideration of the Site for Making a Fecal Fistula in Low-seated Intestinal Obstruction."

Two new proctoscopes have been devised during the past year. "The 1912 Proctoscope," Jerome M. Lynch, (New York Medical Journal, 1912).

"A new Pneumo-electric proctoscope and sigmoidoscope." F. C. Yeoman, (Journal of American Medical Association, 1912, Vol. LVIII., page 929).

There have been several reports of the use of Extra-dural Sacral Anaesthesia, von W. Stoeckel, (Zentralblatt fur

Gynakologie, No. 1, 1909), von Dr. Maryan Tobiaszek, (Zentralblatt fur Gynakologie, 33 Jahgang, 1909), and Dr. Jerome M. Lynch, (Medical Record, February 8, 1913, page 235).

A Method of Operating on Fistula Without Cutting Muscular Tissue. By Rollin H. Barnes, M. D.., of St. Louis,

This method is used in those cases of fistulae which involve the sphincter muscles. An incision is made external to the sphincter, similar to that made when incising an ischio-rectal abscess. Through this opening the scar tissue is dissected out up to the internal opening. An incision is then made at the skin margin, so that the middle of this incision passes through an imaginary longitudinal line drawn from the internal opening. A submucous dissection is then channeled out up to the internal opening. Gauze drainage is kept in this until the external wound is healed sufficiently. Then the submucous tract, which remains, is incised under local anesthesia. No muscular tissue having been cut, the function of the sphincters is preserved intact.

Report of a Case of Fecal Tumor Associated with Hirschsprung's Disease. By Alois B. Graham, A. M., M. D., of Indianapolis, Ind.

Dr. Graham reported a case of Fecal Tumor associated with Hirschsprung's Disease, the clinical history of which is unique and exceedingly interesting. The patient, a young French woman, aged 27, stated that she had undergone three abdominal operations for Hirschsprung's Disease, or Megacolon.

Present illness dates from birth. Not unusual to go a week or ten days without a stool, and then evacuation was produced only by means of enemata.

At the age of 12, her condition was diagnosed as one of pregnancy on account of the vomiting and the appearance of the abdomen.

At the age of 19, she suffered an attack of complete intestinal obstruction due evidently to fecal tumor. She was operated, and a large fecal tumor was removed from the sigmoid. Six months later, she was operated for post-operative adhesions. No resection of the bowel or short-circuiting operation was performed.

At the age of 25, she suffered an attack of complete intestinal obstruction. She was operated, and a large fecal tumor was removed. Patient stated that the bowel was plicated in closing. Wound healed promptly, but she remained in the hospital for three months purely for clinical purposes.

August, 1912, she, for the third time, presented symptoms of complete intestinal obstruction. She had been completely constipated for seven days. Abdomen enlarged and everywhere tympanitic except in the lower right quadrant, where there was a dull area corresponding to a large tumor which could be readily palpated. Tumor, a fecal mass, was exceedingly hard and did not pit on pressure. It could be easily moved in every direction throughout the abdomen. Attacks of violent, colicky pains were frequent. Vomiting was persistent, pulse 120, Temp. 101 F. Hydrogen peroxide, introduced into the rectum had no effect on the tumor, but produced excruciating pains over the entire abdomen. Patient consented to operation with the promise exacted that nothing radical be attempted. She requested that the fecal tumor be removed, but refused to give her consent to any short-circuiting or resection of the bowel.

Median incision. No adhesions. Fecal tumor in sigmoid. Tumor of "stony" hardness. Its greatest circumference was 19¾ inches, its weight was 64 ounces. The dilation which was confined to the sigmoid was very marked, the greatest circumference being 20 inches.

(To be Continued.)

The Wisconsin
Medical Recorder

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F. W. VAN KIRK, M. D. }
PUBLISHED BY
WISCONSIN MEDICAL RECORDER
JANESVILLE, WIS.

SUBSCRIPTION PRICE

$1.00 per Year in Advance; Single Copies 10c in the United States and Mexico.
$1.25 per Year in Canada.
$1.50 per Year in Foreign Countries in the Postal Union.

ORIGINAL ARTICLES are solicited from our readers. We wish articles which are sent us to be contributed exclusively to this magazine. We will send the writer of any original article, if desired, twenty-five extra copies of the number containing the article. We are also willing to send copies to the professional friends of the author.

LETTERS, CASE REPORTS AND QUESTIONS are desired for our Discussion Department.

We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Reports and items of interest are gladly received.

VOL. 16 JULY, 1913 No. 7

The Recorder is pleased to announce that we have secured Dr. Frank P. Davis, Enid, Oklahoma, to write a series of articles on the different business problems that confront the medical profession. The first one of these articles appears in this the July issue, and we expect to have one appear every month. We trust our readers will not fail to read the first and each succeeding article written by Dr. Davis.

PHYSICIAN VERSUS PATIENT.

The attitude of the physician toward his patient has changed materially during the last few years—and the change has been for the benefit of all concerned. It used to be the practice, to veil cases in mystery, and not be at all plain spoken as to the nature of any given condition, but now our patients are beginning to realize what they pay a physician for is to find out what is the matter with them, and if they don't find out from you, it will be only a question of a short time when they will go to one of your colleagues, to be told the truth, so the watchword to all M. D.'s is to be perfectly honest with all your patients in every way. It is the only system that will gain their confidence, and it is the only way in which a doctor can be recognized in a community.

The man who can get the people thinking that by coming to see him they will get a square deal, is the man in this day and age who is going to win out. It is the same in medicine as in any other line of business—take yourself for instance—who do you trade with?—and who do you have attend to your business affairs. There is only one answer, and that is, the man whom you have perfect confidence in, in every way, the man whom you respect in every way, in other words the man whom you expect to give you a square deal.

One of the hardest things for some men to say is "I don't know." It should be the easiest with a physician. The time has passed when a general man is supposed to know everything, and the public is beginning to realize, what we ourselves have known for a long time.

I have never known of a physician losing a case by saying he did not know what was the matter, but we all know well, that we have lost cases by not owning up to the fact that we did not know, so the sooner the profession as a whole realizes the fact that honesty is the best policy to be applied to patients as well as business, the sooner we will gain the complete confidence of our patients and gain a name and a place for ourselves in whatever community we happen to be.

CO-OPERATION.

It has been some months since I have written a plain talk to our subscribers —however, judging from the splendid results of the first letter, I have decided to try again, and try and line all you fellows up to pull for "The Recorder."

I feel that the majority of our subscribers are peased with the material we are giving you each month, but I want to feel that you are all pleased, and that we are all pulling together.

During the last few months we have received many articles from our readers but we want more; we have received many lists of names of physicians to whom we have sent sample copies of the Recorder and we are pleased to state that we are receiving new subscriptions nearly every day. Many encouraging letters are received each week—and it surely does the editorial staff a world of good to know we are pleasing our readers. Many of our subscribers we never hear from but we want to. We want to feel that we know each reader of the Recorder personally—that they are interested in our magazine and that they are doing all they can to improve it.

As stated before it is only by co-operation that we can hope to get the best results out of our work, and we need your help. Any article that you may have we will be only too glad to print —and we will be only too glad to report any interesting case or group of cases that you may send us. A good thing to always keep in mind is the fact that what interests us will surely interest some other member of our profession and the relating of an interesting, instructive case through the columns of your favorite journal, is sure to help some other professional brother out of a tight place, so whenever you have such a case or cases do not fail to write them up and send in the copy. Also any number of names you may wish to forward to us, we will be only too glad to send to your friends, copies of The Recorder. It is only through our friends that we expect to grow, so we are looking for your hearty support in every way.

It is our aim to double our circulation of The Recorder during the coming year but in order to do this we must have the help of our friends, so you see we are counting on each and every one of our readers to do his or her part,—for we not only wish to increase our circulation, we wish to make The Recorder the best Medical Journal of the Middle West.

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It is with pleasure we announce the date of the second annual convention of the American Association for the Study of Spondylotherapy, Chicago, Ill., Sept. 30, Oct. 1, 2 '13.

The large convention held last year while still in its experimental state was a revelation to some of our conservative men but the character of the men on the program and in attendance was proof positive the study and use of the reflexes was result getting in both cure and diagnosis and one of the greatest handmaids of progressive medicine.

The work of Dr. Abrams and his American students in the use of the reflexes is yet in its infancy and we feel we are doing one of the greatest services to any practitioner if we can get him to attend one of these conventions and see the scientific possibilities of Spondylotherapy.

Dr. Abrams will give to the convention some new surprises and Dr. P. S. O'Donnell the X-ray man late of London, Paris and Chicago will be able to confirm some wonderful things performed by Abrams.

A general invitation is extended to all medical men regardless of schools to attend this convention "that's different" and we invite them to membership if of good standing.

S. E. Bond, Secy. A. A. or S. S.

ABSTRACTS

AUSCULTATION.

H. Sewall, Denver (Journal A. M. A., June 28), emphasizes the importance of auscultation in determining the earliest changes in lung tissues. It does not make x-ray examinations less essential, but he believes that auscultation is capable of giving the earliest objective information of physical changes in the lungs. It demands an analysis of the sounds in the vibrations due to the resonance of the viscera and those of the chest wall. The latter can be determined by pressure of an appropriate form of stethoscope. Vibrations transmitting the whisper are confined almost wholly to the viscera. The modification of the voice sounds, their quality becoming amorphic and their duration prolonged into an echo, are the striking characters, which when accented by stethoscopic pressure indicate pathologic changes in the lung. The character and distribution of vocal signs over the normal chest by auscultation are so constant that a topographic study may definitely suggest departures from the normal and the intensity and distribution of morbid changes within the lung even when too slight to appeal to the senses through any other method.

PEMPHIGUS FOLIACEUS.

J. B. Kessler Iowa City, Iowa (Journal A. M. A., July 12), reports two cases of pemphigus foliaceus. After describing the appearance of the skin in this disease and discussing briefly its etiology, diagnosis and prognosis, the author concludes by saying: "The internal and local treatment in these cases seems to be highly efficacious. Two patients within one year with pemphigus foliaceus in an agricultural district is unusual. Quinin in large doss seems to be highly beneficial in keeping the disease in abeyance. Linseed meal and baths containing compound solution of cresol remove the odor and keep the skin pliable and the patient comfortable."

INOCULATION OF RABBIT WITH PARETIC BRAIN SUBSTANCE.

Henry J. Nichols and William H. Hough, Washington, D. C. (Journal A. M. A., July 12), present a preliminary report of their experiments in the inoculation of rabbits with spinal fluid and brain substance from paretics. They conclude as follows: Our result tends to confirm Noguchi's demonstration in so far as it relates to a living virus present in the brain substance. Our failure so far to find the spiral form of the organism may suggest the presence of some other form such as granules, which are not recognized, but for the present we prefer the view that spirochetes are present, as such, but in too small numbers, as yet, to be readily found.

SKIN COMPLICATIONS OF DIABETES.

Burnside Foster, St. Paul, Minn. (Journal A. M. A., July 12), thinks that many general practitioners fail to appreciate the close relationship of the skin complications to diabetes of which they may often be the first symptoms. Among these he enumerates dryness of skin and pruritus, boils and carbuncles and mal perforans which last occurs in about 3 per cent. These are the commonest disorders. Psoriasis has been reported and he has seen it once, but it considers it only a coincidence. Other skin affections are rare asd he has had little experience with them. the early recognition is important since, while the ultimate prognosis is probably bad, there are few other such serious diseases which are more amenable to intelligent treatment, as regards duration of life and the comfort of the patient.

FNCTIONAL DISTURBANCES OF THE LIVER.

When one stops to think of the work the liver is called upon to do in the human economy and the excessive burden placed upon it by errors of diet, faulty methods of living, etc., it is really surprising that this great organ—the largest gland of the body—does not become deranged more often than it does.

Clinical study has shown, however, that the liver is much more subject to functional disturbance than is generally realized. The opinion has been growing for some time, therefore, that not a few obscure conditions of the intestines, particularly those grouped under the term "auto-intoxication," should be attributed to sluggishness or torpidity of the liver processes.

In view of this there is an increasing demand for a cholagogue that can be relied upon to stimulate the functional activity of the liver without at the same time producing a degree of catharsis that is neither necessary nor desired. Many and various are the drugs that have been tested with this in view, but practically the osly one that has met the situation is that long known and widely used preparation of Chioanthus Virginica, Chionia.

This product is exceedingly effective as a stimulator of hepatic processes, and administered in proper dosage it is not only an effective colagogue, but what is especially important, it can be relied upon to produce its effects without undue activity of the bowels. The prompt influence of Chionia on hepatic functions consequently gives it a broad range of usefulness, not only in overcoming liver disorders themselves, but also the various affections that are dependent on hepatic deficiency or derangement. tI is indicated in acute and chronic hepatitis, catarrhal jaundice or cholangitis, biliousness, chronic intestinal catarrh, intestinal putrefaction, auto-intoxication and all maladies caused or aggravated by derangement of the liver.

The significant feature attending the use of Chionia is that it always acts by promoting or augmenting natural processes—never by superseding them. It belongs, therefore, to the class of remedies aptly designated as physiologic, for its whole action is to restore and maintain normal or physiologic conditions of the liver.

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The hypersusceptibiilty of children to opium is one of the most potent reasons for employing a substitute in its place in the treatment of diseases of children. It has been found that Papine Battle) is well borne by children to whom opium or morphine was intolerable, but when it is remembered that in the manufacture of Papine, through a special process, the narcotic and convulsive elements of opium have been eliminated, the reason for this point of Papine's superiority over opium, will be well understood.

Papine (Battle), as is well understood, is a product of opium subjected to a process which while retaining the analgesic and sedative properties of the drug, separates from it the objectionable qualities, leaving the finished product of more than ordinary worth as an opiate for use in children.

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Mary Mullen, known to medical circles as "Typhoid Mary," has been advised that she has no cause of action against the Board of Health of New York, or against Commissioner Lederle, Dr. Bensel, or Dr. Soper, who caused her to be detained for three years on North Brother Island as a public menace. The Board of Health in this case, it is held, acted entirely within the power conferred upon it by the city charter.

Wisconsin Medical Recorder

A Monthly Journal of Medicine and Surgery, devoted to the best interests of the profession

VOL. XVI AUGUST, 1913 NO. 8

ANIMAL vs. VEGETABLE FOOD

G. G. BURDICK, M. D. and THEODORE C. F. ABEL, M. D., Chicago

The argument is often made that while eating the flesh of animals may be more or less detrimental from a physical standpoint it is necessary from an intellectual one. The apparent proof for this assertion lies in the fact that the civilized races are as a rule flesh eaters, while those races who from choice or necessity subsist largely on a vegetable diet are their inferiors from a mentally progressive standpoint.

At first sight this seems a strong point. There is no doubt that the Anglo-Saxon race, for instance, who are confirmed flesh eaters, are more highly advanced in so-called civilization than for example the Hindoos or India, who are mostly vegetarians.

But should the cause for this advanced condition be looked for in this direction? Is the use of animal flesh for food really the cause of civilization? Or on the other hand, is it not possibly the result? Or is it simply a coincidence?

He who answers these questions is a wise man, indeed, and is taking upon himself a great deal. Let us see whether actual facts bear out any of these assertions.

Beginning with the animal kingdom we have an excellent opportunity to compare the intelligence of those who eat flesh with those who subsists on vegetable food. Here again, at first glance, we must apparently concede the superior intelligence of the flesh-eaters. But only apparently, as we shall show.

First of all we must distinguish between the higher intellectual or reasoning faculties and simple cunning. The animal possessing the most cunning will in the end often prevail over his more intellectual adversary. The same holds good among men.

Nature, who compensates for everything, has endowed the flesh-eating animals with the necssary degree of cunning to enable them to secure their food. Otherwise they would starve. It may be noticed here that this inborn cunning of the carnivora, shown perhaps at its best in the fox, is not the result of a flesh diet, but more probably the cause thereof. If not this, then it is simply one of the numerous adaptations of nature to enable these animals to stalk and capture their prey, which is usually superior to them physically and often intellectually.

We cannot for one moment compare the low cuning of a fox with the straightforward intelligence of a horse or an elephant, any more than we can compare a successful burglary or other cunning crime with the accomplishments of a Gladstone or a Newton. There is no resemblance, it is a mental accomplishment of a different order, and used for self-protection or criminal purposs only. The most intelligent

animal known, whose accomplishments almost rival those of the human race itself, is the beaver. It is not a flesh-eating animal but a vegetarian.

Instances could be multiplied, but we have to deal not with the animal, but with the human race. We have merely attempted to show that while the flesh-eating animals surpass the vegetarians in criminal cunning, they are not in the same class as far as higher intelligence is concerned.

Now to return to the human race. It is true that the civilized races eat flesh. It is also true that civilization has produced some of the most cunning criminals of the earth. We do not claim that this is due to flesh eating. But neither do we admit that the advantages of civilization are due to this habit. What we do believe is, that it is just an unfortunate coincidence, and is to be placed in the same category with two other products of civilization —the use of alcohol and tobacco. Surely no one will claim that because these two habits are almost universal among civilized races that to them must be attributed their advanced condition. Yet the same claim is daily made with regard to the use of animal stimulants, which is the only reason for eating meat.

The continual demands which the strain of a civilized life makes on the human body and mind, are the cause for the universal indulgence in stimulants. A tired horse needs the whip, or rather gets it whether it needs it or not. Nature did not intend us to overtax ourselves day after day, week after week and year after year, in attempting to live the artificial life, which seems necessary, in order to keep up the dance around the golden calf. Her resources fail every now and then. So the whip is used on the tired horse—the stimulant becomes necessary—and if it is not a glass of whiskey or a cigar, it is a porterhouse steak or a plate of soup. Real food—food only—does not fill the bill. It only nourishes; it does not stimulate.

The apparent intellectual inferiority of the vegetarian races is not so real as is imagined. True they have not progressed so far in some things as we have, such as inventions, arts, commerce, and others of the blessings we enjoy. But it is not proven by any means that this is because they eat no meat.

That the oriental races as a whole, who in a general way may be considered vegetarians, are far advanced over the occidental races in the higher psychological attributes, is a well-known fact. Here agan we may mention the Hindoos of India, among which this higher knowledge seems particularly well developed. This is no place to discuss matter of psychology; we refer the reader to the works of any traveler in India for information in this respect.

We are living in a grossly material age and the tendency at the present day is to see only such things as tend to improve the material existence of the individual or the race. For this reason the really superior traits of the higher mind which are found in vegetarians are overlooked in favor of the more subtle cunning which seems to accompany the eating of meat. For as we remarked before, cunning will prevail over intellect, and the most warlike nation, the one most skilled in means of defense and offense, in means of transportation, communication, of trade and barter, will and must prevail over the one less skilled in these advantages, even though the latter be superior in the more spiritual attributes,

It is the old conflict of mind and matter. Which will prevail in the end is a matter for the future to decide. ,,

Coming back to our principal subject, i. e. the advisability of vegetable as compared with animal food, we can do no better than quote the case of a

man, recorded by Foster, who had for three years lived on an exclusively vegetable diet, viz.: bread, fruit and oil. This individual was in perfect health, 28 years old and weighed 57 kilogrammes.

It was found that his average daily diet consisted of 719 grammes solid matter and 1084 grammes of water. The solids were divided as follows:

Proteids 54 grammes (equal to 8.4 gm. nitrogen); fats, 22 grammes; Carbohydrates, 557 gramms (about half sugar and half starch); cellulose (undigestible residue) 16 grammes.

A careful analysis of the feces showed that not nearly all of this material was utilized by the body. After subtracting the wasted portion from the above, it was found that the individual was really living on proteids 32 grammes, fats 15 grammes, carbohydrates 540 grammes and cellulose 7 grammes, a total of 644 grammes.

So far as bulk is concerned, this diet compares unfavorably with the theoretical adequate diet of Ranke (450 grammes daily), or a modified vegetable diet containing milk and eggs (622 grammes), both of which include animal food.

It is also probable that in order to secure sufficient protein from such a diet the amount of carbohydrates will be in excess. Thus there will be relatiely large amount of undigested food (mostly starch) lost in the feces. This will mean a considerably larger bulk of feces relatively to the total food, than is the case in a mixed diet. This peculiarity becomes very apparent when we compare the herbivorous animal with the carnivorous. The frequent and abundant feces of the former as compared with the latter are very characteristic; another striking point being the comparatiely inoffensive dejecta of the carnivorous animals. We may quote as examples the horse and the cat.

The reason for this lies largely in the fact that the bacteria inhabiting the intestinal tract find a much greater scope for their activity when the material they work on contains animal waste. The products formed from protein by bacteria are hydrogen sulphide and other ill-smelling gases; from carbyhydrates they are hydrogen and carbon dioxide, both odorless.

It seems the concensus of opinion among physiologists that a purely vegetarian diet is inferior to one of a mixed nature, although the only argument bearing any weight at all is the one we have just discussed, that is, the greater bulk of the feces, on account of the necessary excess of starch. Whether this is really a drawback, seems an open question. It would seem to us, that under such conditions there would be a much greater tendency to the keeping clean of the intestinal tract by virtue of the mechanical scouring action of the large watery stools, free as they would be from easily putrefiable animal products.

So far as the general objections are concerned, such as the association of animal food with intellectual progress, we do not think they can be taken seriously, when subjected to the scrutiny of reason and logic. It is simply a case of confounding cause and effect.

In our next article we shall call attention to the effect which an excessive protein diet has on the higher mental functions, also on the sexual life of the individual, and show conclusively that the effects of these animal stimulants are comparable with those of alcohol and other poisons.

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There are few better remedies in whooping cough than atropine, but it should be given to the point of physiologic effect. In addition saturate your patients with calcium sulphide.

MATERNITAS

By CHARLES E. PADDOCK, M. D., Chicago, Ill

(Continued from Page 209 July Recorder

THE BABY'S FOOD.

Hygiene of Nursing.—Nature's food for the newly-born child is mother's milk and so deeply is this fact, that it is the best impressed upon the minds of physicians that many will refuse a case of pregnancy if the woman, even though she be perfectly healthy and has an abundance of milk, says she does not intend to nurse her baby. Fortunately such cases are rare because most women realize the value of mothers' milk for the child and to look forward to the nursing of their babies with pleasure.

The nursing baby generally makes better progress in weight, sleeps better, has less colic and cuts its teeth with much less disturbance than the one fed upon the bottle. Nursing has a distinctly beneficial effect upon the mother also. It is a well known fact that with the nursing mother involution of the uterus, that is the return of the womb to is normal condiion, is much more rapid than in one who does not nurse her baby.

Many mothers fear their babies will starve if something is not given them to eat immediately after birth. This is erroneous. As a matter of fact it is not necessary that the baby have artificial food during the forty-eight to sixty hours that the breast milk is being established.

Sometimes it seems almost impossible to make the child take the breast, and every expedient must be tried. It may be necessary to start the milk with a breast pump, or if it does not flow readily, hot compresses for a few minutes over the breast will usually cause it to do so.

Regular weighing of the baby will give important data regarding the quality and quantity of the milk. The condition of the bowel movement is also a good indicator. In many cases when the mother's milk does not seem sufficient at first, an increase will be found gradually to occur.

Between nursings the baby will need some warm water, and care must be taken that it is not too warm nor too cold. It should be either boiled or distilled unless it is a pure spring water. It is imperative that the bottle be held by the nurse until the infant is through drinking. From two to four ounces of water may thus be given in the twenty-four hours to a very young baby.

Very often the baby is fretful at the breast because of the manner in which it is being held. Care must be taken that the child is comfortable, and that the nipple does not enter the mouth at an angle. If the mother is nursing the child in bed, she should lie well over on her side with her arm up, and her hand back of her head, holding the breast with her other hand. This may seem a trivial matter, but some children will not take the breast while in a poor position, or if they do they continually fret because of it. Again, the supply is obstructed when the nipple is at an angle and the infant may not obtain enough. Never fall asleep with the baby at the breast.

Sometimes the nipple is imperfect and the baby is unable to grasp it; we are then compelled to resort to other means, the feeding being satisfactorily accomplishd with the artificial nipple. This shield may also be used when the nipple becomes sore or cracked.

Sore nipples are often caused by too frequent and too long nursing. As soon as the baby is removed from the breast, the nipples should be washed with boric acid solution and thoroughly dried with absorbent cotton. Do not allow the vest or gown to come in contact with the nipples; keep a piece

of soft linen over them. The physician should be notified whenever abrasions appear because they often result seriously.

The artificial nurser should receive the same care as the rubber nipple; that is, it shoulh be boiled and kept in a solution of boric acid.

If the infant vomits immediately or soon after nursing, it may indicate that too much food has been taken. In correction, the length of the feedings should be shortened, or the intervals between them increased. The milk should not be taken too fast; to prevent this the feeding should if necessary be frequently interrupted. Again, tight clothing or tossing the baby just after nursing will cause this vomiting. If vomiting occurs longer after nursing and is continued, it shows an indigestion which must be corrected by the physician.

No nursing should be longer than fifteen or twenty minutes. It may be very difficult to keep the baby awake and occasionally all means will fail to arouse it even long enough to make it grasp the nipple; in such a case wait until the next feeding hour. If it should waken in the meantime a little water will quiet it. This condition does not last long and you will soon find it ready and waiting at every nursing time.

The baby must not be allowed to remain by the mother or to sleep at the breast, as accidents to the baby may happen. Such treatment will also train it into habits which will make a slave of the mother.

During the first few weeks one breast at each nursing furnishes plenty of milk, and it is better not to put the child to both breasts at one feeding. Write down on a piece of piece of paper in the morning the hours for nursing and the breast to be nursed; then there can be no mistake.

Usually the nursing mother does not menstruate for the first few months but should she do so it does not necessarily follow that the baby must be weaned; on the contrary there is usually no evidence that the milk is being altered or that the baby is suffering. Sometimes the milk may be slightly reduced in amount and artificial feeding for a day or two may become necessary. And again, some infants are considerably disturbed and breast feeding has to be abandoned during the time. These cases, however, are rarer.

Should the mother become pregnant while she is nursing her baby it will be necessary to discontinue the breast feeding.

Weaning.—The time for weaning varies with circumstances. It is generally believed, and probably with good reason, that mother's milk is not a sufficient diet for a baby after the ninth or tenth month. If the mother is strong and the child is growing, nursing agrees with both; under such circumstances, nursing might be continued until the end of the tenth month. If, however, this is a great drain on the mother, and she shows the effect of it, weaning must take place earlier.

If the baby stops growing and seems to crave more food, or if before this occurs the breast milk is known to be poor in quality, the physician may decide to combine artificial food with the nursing. Under no circumstances, however, should the baby's food be changed without the physician's advice. It is not unusual to see a baby whose digestion is seriously impaired by the improper substitution of other food by the mother.

Weaning a baby during the very hot weather is, of course, to be avoided if possible; defer the process until early autumn.

Allowing the baby during the first two years to taste food at the table is a dangerous habit. It is better for the

child not to be brought into the dining room during meals, but the comfort it affords the father, who perhaps does not get an opportunity to see it at any other time, must, of course, be considered. At any rate do not commence the habit of giving it little tastes of table food.

When the baby is weaned the best food to give is cow's milk, modified to correspond to the mother's milk. The writer does not think it advisable to give formulas for baby feeding, as this complicated duty belongs to the family physician who should be consulted.

If the child is weaned slowly there is usually no trouble with the breasts, but in some cases it becomes necessary to wean rapidly and the breasts become quickly engorged. In such instances as little liquid as possible should be taken by the mother, the bowels should be freely opened and a tight breast binder skilfully applied by the physician or a nurse.

The saliva and the gastric juice are poorly developed in young infants. At first there is only saliva enough to keep the mouth moist; consequently starchy foods cannot properly be given an infant during the first few months —to this we refer in another place. The saliva has increased, however, by the third or fourth month and the baby commences to drool. This drooling is not necessarily a sign of cutting teeth.

When the mother finds she is unable to nurse her baby and the use of modified milk is not advisable, the wet nurse is the alternative. With careful selection she will prove the best possible maternal substitute. She must be carefully examined by a physician, never being taken on the recommendation of friends. She must be in perfect health, living upon plain healthy food, keeping regular hours, being compelled to do a certain amount of light housework and to have plenty of out-door exercise. So necessary to the successful feeding of a child is the wet nurse's health, that she should live under a definite regimen prescribed individually for her by the family physician.

Artificial Feeding.—It often becomes necessary to feed the baby upon other than breast food. This is called artificial feeding of infants, and is frequently a trying procedure to both mother and physician.

The best artificial food is undoubtedly cow's milk, modified in such a way that is will as nearly as possible resemble mother's milk in all the latter's constituents.

Many babies seem to thrive and grow fat on the much advertised baby foods, but the mother should never take the responsibility of using foods recommended by her neighbor; the food which may agree with one baby will not always be proper for another.

However, fat is not always the sign that a baby is healthy or will remain so. Even though some prepared food firm may show pictures of large fat babies, these pictures do not signify that all babeis taking this food are healthy, or that they will be as strong through childhood as others who have been fed by more scientific or, it might better be called, more common-sense methods.

The code of medical ethics does not permit the physician to show his handiwork to the world through newspaper advertising. If it did, the physician who rears his little patients in a scientific way upon modified cow's milk, could show healthier and stronger babies and children that we see in the baby food pictures.

While it is not the purpose of this book to instruct the mother in artificial feeding, a few facts regarding cow's milk and the necessity of care in preparing it may be useful.

Cow's milk in its natural state cannot be fed to very young infants, be-

cause, while it contains all the elements of mother's milk, it does not contain them in the proper proportions. Changing the proportions of the elements so that it will make proper food for the baby is called "modifying" cow's milk. Cow's milk has less sugar and more proteids (curds' than mother's milk and its reaction is acid, while mother's milk is alkaline.

Milk is made up of solids and water. The solids consist of the fat, sugar, proteids and salts, being about thirteen per cent of the total amount. Water constitutes eighty-seven per cent. The total solids are about the same in mother's milk and cow's milk.

If the task were merely to modify cow's milk so that the proportions would be the same as in the mother's milk, there would be very little trouble, but when this is done there are other factors to be taken into consideration; the most important of which are the purity and the temperature of the milk.

Mother's milk is absolutely sterile, that is, free from germs, and is taken into the baby's mouth in such a condition. It is also of an even and proper temperature.

Cow's milk is not sterile one minute after passing from the udder. It contains bacteria which multiply rapidly. Again, so many cattle are diseased that the milk becomes sometimes a source of infection. Furthermore, when the milk is fed to the baby it cannot maintain the proper temperature during the entire nursing.

If it be necessary to feed the baby upon cow's milk, select it from a mixed herd of cows rather than from one cow or from a herd of high bred Jerseys or Alderneys. "Herd milk" varies little day by day, but milk from a single cow is liable to a wide variation.

Parents who take their bottle babies to the country to give them pure air should investigate the milk and water supply. They should visit the nearby dairy farm from which the milk for the child comes, ascertain when the cows were examined for tuberculosis, examine the milk cans and milk receptacles, be present at a milking and learn how careful or careless the milker is regarding cleanliness. Is the cow ever groomed and cleaned? Does the milker wash the udder of the cow and wash his hands before milking? Parents should know all about the milk fed their babies and if they will aid the physicians in this way it will not be long before each dairy will be striving to outdo the other in furnishing a supply of milk that will be pure.

As generally brought to the house, milk will not keep long because of the bacteria which have collected in the process of milking, or in the transportation receptacles. Milk thus contaminated easily becomes sour. It may contain the germs of typhoid fever, scarlet fever, cholera, tuberculosis, etc. For this reason, unless it is heated to a certain point, it is dangerous for infant feeding. This process of heating is called sterilization or pasteurization, the name depending upon the temperatur to which the milk is carried.

In order to sterilize the milk, it is brought to the boiling point, 212 degrees F., and is kept at this temperature for one hour. This destroys all germs, but renders the milk very indigestible, and therefore not proper food for infants.

The aim should be to obtain fresh and pure milk which will not require sterilizing or pasteurizing. In most large cities this is now possible, and much credit is to be given to the several concerns which are faithfully attempting to obtain this result.

(To be Continued.)

COPPER IN CANCER

By F. F. CASSEDAY, Ph. B., M. D.
Portland, Oregon

A recent editorial in Amer. Jour. of Surgery referred to the use of colloidal copper solution intravenously for cancer.

If as I contend radiation is the force which maintains life and cures disease by constant degredation and decay of material which enters the body by the force of gravitation it is essential that elements (drugs) administered for the cure of disease by their catalytic action must be given in minutely divided form, in small doses, and reinforced when necessary by a minute portion of some colloidal metal solution. This new theory of drug action I have discussed fully in a paper published some time ago. The whole trend of physical and chemical research shows conclusively the tremendous force of matter in minute subdivision, and the catalytic action of all elements more particularly certain colloidal metal suspensions in water. Platinum for instance gives off particles of water from a weak electrical current, forming a genuine colloidal solution. This platinum colloidal solution is invisible even with the highest power microscopes, and is only visible with the ultra microscope. The so-called Brownian movements of the particles of platinum (rotation about certain axes) are visible under the ultra microscope. The platinum colloidal solution will split fats and form invert sugar. We can with reason infer from this demonstration of the tremendous power of this transcendentally subdivided and diluted element that if colloidal metals are used in medicine they must be used very cautiously and added drop by drop to solutions of other elements (drugs) to reinforce the action of the latter. In my opinion colloidal metals are not drugs in the ordinary sense, and should not be used as such alone. Furthermore it needs no argument to prove that all matter to be useful and acceptable to the body process of degredation by radiation must be minutely divided and diluted to secure the best curative effect. That is nature's method.

I can see no indication for using any salt of copper for cancer.

All copper salts expend their force on the mucous membranes, and they do not have the general effect as catalysts which is imperative in any drug given for the cure of cancer. The acetate of copper is especially useful for spasmodic stomach and bowel troubles. The arsenite of copper also expends its force on the gastro-intestinal tract. Metallic copper is indicated for gastro-intestinal troubles like Asiatic cholera, diarrhoea, cholera infantum. Metallic copper might possibly be useful in cancer of the stomach, but it is doubtful as other drugs have a greater affinity for the gastric mucous membrane.

The report does not state what kind of a colloidal solution of copper was used in the Kansas City cases. Water placed in a clean polished copper vessel will absorb a certain amount of copper, but such a solution is not a colloidal solution like the platinum solution noted above.

The effects shown after the use of the copper intravenously indicated conclusivly to my mind that the use of copper in such a form is contraindicated: 1. It is not indicated in cancer. 2. If prepared as a true colloidal metal suspension by electricity it is far too powerful for use as a drug alone being convulsive and depressant. 3. If for any reason it was used as a colloidal suspension a few drops only of the solution should be added to the solution of drug used, and both given internally.

There is absolutely no advantage in administering a catalyst subcutaneously or intravenously as degredation and

decay of matter and its elimination is a general and universal body action. Any treatment like injection into the walled off glands, tumors, or growths would pour the load of poisonous material into the general stream of matter and metastasis would naturally result. On the contrary if elements (drugs) having an affinity for the tissues involved in the disease, and if necessary reinforced by some colloidal metal suspension, were administered the catalytic action will be general, and the stream of matter will not be so suddenly increased as to overwhelm the machine.

ADDITIONAL NOTE BY DR. CASSEDAY.

This paper was sent to the American Journal of Surgery, New York City, and was returned by Brickner, Editor-in-Chief with the attached comment that it would not interest their readers that the author had not read the Loeb article referred to, that some of the statements were wrong, and that he (The Editor-in-Chief) did not know what the author was driving at. These reasons are certainly voluminous and probably conclusive to Editor-in-Chief Brickner of the American Journal of Surgery of New York City, N. Y., U. S. A.. Answer. Dr. Casseday read the original Loeb et al article, and he read Brickner's editorial comments on it. Loeb et al stated that injections of colloidal copper had been used on the site of the cancerous growths, but the authors did not state what the particular colloidal copper solution was which they use. Neither the authors nor Brickner told what form of colloidal solution or so-called colloidal solution was used, hence I have no means of knowing. If the Loeb et al experimenters used a mere solution of copper in water it was not a true colloidal copper solution at all. However that is not material to this discussion.

Brickner stated in his editorial about the Loeb et al cases that metastasis and death occurred (if my memory serves me as to the death matter), and also suggested that the efficacy of copper used in this way was not demonstrated, or words to that effect.

Second. Brickner says it would not interest the readers of the American Journal of Surgery. Reason not given, but probably Bricknr is a mind reader and knows what every reader of the A. J. S. is averse to reading anything which apertains to modern science and its revelations—especially those things which E-i-C is not familiar with, and which jar on his gray matter. Such editorial perspicacity is remarkable, and the ex-cathedra statements of such a wise editor will be hailed with delight, for his wonderful fund of experience of his seventeen years of practice, and years of editorial work. It is great to be cocksure, even if you are wrong. It reminds one of the Irishman who licked his boy when he had committed no offense. Why are you licking me, father, I have done nothing. To which appeal the father replied "I am not licking you because I hate you, but to show me authority."

Third—The E-i-C Brickner says he does not know what I am driving at. He does not specify further. Answer—Perhaps E-i-c Brickner has never heard of colloidal platinum made by an electrical current. If not, he better look it up. It is most interesting. Perhaps Brickner does not know that copper in water will dissolve quite a quantity of copper. Perhaps Brickner does not know that such a solution is not a true colloidal solution. He better look this up. Perhaps Brickner does not know of the remarkable actions of many catalysts in such minute quantities in solution that the highest power microscopes show nothing in the water, but

that with the ultra microscope these shining particles (notably of platinum) shine in the water solution like stars on a summer night in a cloudless sky and that these starry minute particles revolve about certain axis in the field —the so-called Brownian movements. Perhaps our wise Editor Brickner does not know that this same colloidal solution of platinum, only visible to the ultra microscope, and absolutely invisible to the highest power ordinary microscope, has the power to split fats, form invert sugar, and do many other remarkable things. And bear in mind that this colloidal platinum solution is the most finely divided matter which the eye of man has ever seen, tho the effects (rays) of matter even more finely divided have been measured. It is all most interesting. Our astute editor ought to look it up. He might consent to mention it in the columns of even the American Journal of Surgery. But after all one cannot expect even an editor to know everything, even if he has been an editor for several years.

Perhaps the Editor of the A. J. S. has never investigated the catalytic action of hundreds of ordinary substances, all showing beyond cavil or question (except either to a man blind either physically or mentally) the marvellous and demonstrated power of matter in an extremly divided form. Perhaps this is all unknown to him, he certainly gives that impression.

What stunned this Editor more than anything else was probably my references to my new theory of drug action namely:—"Radiation the force which maintains life and cures disease." This is a bold generalization from the comparatively recent announcement of a new discovery in astronomy, namely the discovery of the force of radiation, the force in the universe which to a certain extent counterbalances the force of gravitation. Gravitation is the pulling power of sun, earth, and other heavenly bodies. Gravitation works on matter in mass, and its force is lessened in proportion as matter is finely divided. As matter becomes finely divided whether it be animal, vegetable, mineral, gaseous or rays gravitation loss its grip and radiation assumes control and forces the finely divided matter (matter used as indicated above) by gravitation and radiation constitutes the cycle of the universe. These two laws are at work in the making of new worlds planets, and stars. Radiation is the power which throws off the streams of light from the sun. Radiation is the force which builds up new planets and worlds from the finely divided matter which is sweeping through the ether of the universe. Radiation is sending light and solar heat to the earth from our sun, and pelting the earth with rays and emissions (they may be gases—call them what you wish). If this cycle of activity did not exist, if these two forces of gravitation and radiation did not act as counter forces everything in the universe would eventually be piled up on the largest sun or planetary body as gravitation acts more powerfully as the mass of the body increases. Radiation increases its pushing power on matter in proportion as matter is finely divided. Gravitation keeps man on the earth radiation enables him to move about. All matter on the earth including man goes through the process of building up, a short existence (in a comparative sense), and decay and degradation into finely divided matter to be carried to the uttermost confines of the universe by the force of radiation, ultimately maybe to be gathered up by some future world or planet by its power of gravitation. We know the whole life of man is a process of growth, constant decay (not used in the sense of putrefaction, but in the sense of being finely divided), and ultimate return to the fundamental ele-

ments from which he came. This is my theory and I stand by it. Time is proving its truth. The catalytic action of radium, platinum, and hundreds of other elements prove the efficiency of matter in finely divided form, and experiments of thousands of painstaking and scientific physicians have proven during the past hundred years the marvellous power of drugs or elements in a finely divided state. This theory does not claim or even state that this power of radiation is due to the element we know as radium. Radium may or may not be a master catalyst, or the source of the power of radiation. We have not gone far enough on the road to know this or even guess at it. Practically all we know of radium is that in its earthly habitat it is the centre of a tremendous light and heat forming force.

Our wise Editor Brickner apparently knows nothing of all this. He ought to look it up. It is tremendously interesting. Perhaps this Master Editor knows nothing of the tremendous things which are being done by the physicists, the physiological chemists, the industrial chemists, and how closely they touch the questions of life, drug action, the nature of matter, and how they are overturning some of the pet theories of the academic doctor, who believes many things are true because forsooth he wants them to be so, he takes no pains to ascertain or test their truth or falsity.

Finally this wise and astute editor, who by his own confession knows nothing of the matters I discussed in my paper calmly establishes his consorship over a medical article forsooth because he fears some new idea or fact may creep into the columns of th A. J. S. This remarkable editor comments on such rot as injecting a copper solution for cancer, but lacks the courtesy to admit a paper which calls attention to the real action of copper, and notes the fact that other colloidal soltions either alone or in combination would be far better. This attitude is a fair sample of the attitude assumed by many school medical journals today. They publish every crazy fad, run after German patent medicines put out under so-called scientific investigators (God save the mark), but refuse a hearing to demonstrated facts. As some witty layman remarked the other day the old school are running after fads, and cure alls, and serums for everything from sore toe to sore head, perhaps in a hundred years more they will find a cure for whooping cough.

Great is Diana of Ephesus, there is money in the fraud.

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A. Ravogli, Cincinnati Journal A. M. A., July 12), publishes an interesting case showing how the use of salvarsan has demonstrated the fallacy of Colles-Baumes' and Profeta's laws. The child in the case reported was born perfectly free from syphilis though the mother later showed syphilitic symptoms. The opinion of Pollitzer that salvarsan kills the active spirochetes and spares the inactive ones is supported. The mother had conceived and carried to full term the child free from syphilis while she still had spirochetes in her system which later became active. In the father, who was originally infected, they had been destroyed and the Wassermann tests were negative as they were in the child. The case gives no suport to to the idea of Matzenhaur that the fetus receives infection from the mother only, but rather supports that of Hainiss that the cause of hereditary lues is the infected sperm. The child while born healthy was afterwards infected with an initial lesion followed by secondary symptoms from the mother.

ELEMENTS OF SUCCESS

FRANK P. DAVIS, M. D.,
Enid, Okla.

AN AGE OF FINANCE.

This is an age of finance in which men are judged by their standing in the business world. It has been stated as an axiom that merit will always win but the term must not be limited to one's ability as a physician, but in the broader and more general field of merit as a man in his business, social, political and professional relations to the public. We frequently find the most unprofessional men ranking high in their community, due to the fact that they are successful business man, and are respected by the public because they take an interest in public affairs and are generally all round good citizens. To reach success in any calling it is necessary to have a good credit among business men. The way to have a good credit is never to use it. Credit is a thing to possess but not to use. The men who have the best financial credit as a rule are the ones that do not use it, while the man that makes the greatest use of his credit generally has the least. There is a thought germ in this.

SOCIAL LIFE.

Men are naturally inclined to go in herds. Like birds they flock together, and like birds you can usually tell the kind by the flock. Most men would prefer to see their doctor—the man in whose hands they place the lives and confidence of their families—coming out of a church than out of a saloon. This applies to the saloon-man as well as to the church-man. As men grow older and raise families they consider the habits of the men that must come into the close relationship with their families that the doctor does. It is but proper that they should, as there is no person that has the key to all the closets containing the family skeletons like the family physician. No man can hope for success until he cuts out booze and tobacco. A man is but a bundle of habits, and the successful man is the one who weeds out the questionable habits and cultivates the better ones. It is a good idea to cultivate the habit of going to church occasionally. It is not necessary that you be a church member, but it doesn't hurt a man to go to church, and there are a lot of people that really feel safer in the hands of a doctor who they see at church once in a while.

Then you should have a political preference, and not try to trim your sails to every wind by trying to hide your political inclinations. The world likes to know where to place a man. They like a man who has an opinion and the nerve to say so. But this does not mean that he should be a partisan in either religion or politics and be continually arguing. The preacher is paid to talk religion, and small calibre politicians will do the political arguing "without money and without price."

WHAT IS SUCCESS?

It has been a long time since the old Greek, Aeschylus, remarked: "Success is man's god," but if he was here now he would be of the same opinion still. A great many men think if the rest of the world does not stop work to talk about them, that they are not successful. But success is not so much in seeing one's name in the newspapers frequently as the great physician or surgeon, as it is in making a good living for the wife and children. It is a great deal more laudable to have it said that you have the best behaved children and best dressed wife than that you have performed the greatest number of operations. The man who has a good home and whose family are contented and well provided for, is getting pretty close to real success. And this fact will go farther toward building up a good practice than all

the blind newspaper items one can get in the papers—by paying space rates. I was riding around the residence district of a city one time with a friend and in passing a very beautiful home with well kept lawn, flowers and a young woman sitting on the veranda, I remarked on the beauty of the place, and the fact that it seemed to stand out from the other houses in its attractiveness. My friend said it belonged to Dr. Blank. I said I had not heard of this doctor, and did not recall even seeing his card in the papers. Then he told me that Dr. Blank did not do any advertising other than in having an attractive home. The people of that town would drive around that street just to pass Dr. Blank's home, which was the show place of the town. The doctor had the largest and best paying practice in the place. Another thing my friend told me was that when Dr. Blank's wife or daughter gave any social affair the papers never reported it as "Mrs. Dr. Blank." No, the "Dr." was not carried into the social field. I often think when I read a social write-up what a chance for advertising is being overlooked by the lawyer or groceryman in not having their wives and daughters referred to as Mrs. Grocerman Jones, or Mrs. Attorney Smith. Success is not a question of fireworks and the lime light altogether. As a general rule the man who can please his clients, and has the reputation of being honest and paying his obligations; who leads a clean life and has the loyalty, respect and confidence of his own family and his near neighbors can be said to have won success. This man will grow in practice as well as in grace.

SATISFACTION.

Satisfaction is a big word. It should be written under every week day date on the calender. It should apply to work well done and not alone to one's position in life. The man who is satisfied with his position, practice or income is looking forward into the past. He will soon be displaced. We are a race of displacers, and history is being made very fast in these days. You must keep moving forward into the place now held by the fellow ahead, or the man coming behind you will crowd you off the base and you will be out of the game. You can't stand still. It is up to you to make the next base or lose the game—only this and nothing more. To be satisfied should mean that you have done your work a little better today than you did yesterday; that you have saved a little more; that you have had a little more pleasure and that your wife and children have been a little happier today than they were yesterday. That is satisfaction. That is the kind of satisfaction that blazes the trail to success.

WAY OF ATTRACTING BUSINESS.

Some of the most successful men I have ever met made it a rule not to charge lady clerks and grandmas living with their children, for services other than medicines. It is a very good practice to carry candy and fruits to your little patients, and there are communities where it is not bad practice to buy the baby a dress or a baby record-book. I have in mind a physician who insists on having the picture of every baby he delivers. These are arranged neatly in his reception room and make a rather clever art exhibit. They do say that the women of that town vie with each other to see which can have the greater number of pictures in the exhibit. Whether this is true or not he does do the major portion of the obstetrical practice. Another man always writes a letter to any one who has referred a case to him or spoken a good word for him, thanking him for the favor shown. All these little things help. It pays to be human and take an interest in your clients.

THINGS THAT LEAD TO SUCCESS.

Probably the most important trait to a physician is secrecy. Learn to keep the secrets of your patients. Never tell anything about a case, or that you have learned in the homes of your patrons.

If your patients desire that their illness be made public, give them the pleasure of publishing the fact. It is not advisable to tell your patients who your patients are or who is sick. It is no one's business but the patient's and your own. Only those egotistical imbeciles that desire to blow about the great practice they are doing ever speak of their patients to others. This class never get very far up the ladder of fame. The slightest reference to a case may give some old gossip the basis for a very interesting story that will do your patient an irreparable injury, and it will be given as coming from the doctor. Many of these old gossips have a larger circulation than any daily paper in the community, and their publications are not censored.

CONCENTRATION.

The power to concentrate your mind upon your work, your hobbies and your home is the one thing that will greatly shorten the road to success. This power is not an inherited character, but one that may be acquired with a reasonable effort. By keeping abreast of the times in the lines of effort of his clients as well in his own professional work a man becomes of more use to the community, and will have less resistance to overcome in reaching the goal.

GETTING IN TOUCH WITH YOUR CLIENTS.

In a farming community a knowledge of farming and stock raising is of advantage. This is true in all lines of endeavor. It shows that you have an interest in the well-fare of your clients and that you have a brotherly feeling for them. If you can go out to the barn and look over the thoroughbred yearly heifer and give the owner a chance to talk of its own strong points, and show that you are interested you make a friend. Most men take as much interest in their stock as a woman does in her children. Learn as much as you can about the line of work in which your clients are engaged and you will have more influence with them and gain their respect. You will understand the men you have to deal with and you will see life from their standpoint. These things count. A knowledge of your profession is not enough. You must get in touch with the life work of those you must depend upon for your living. Then don't forget to learn the relationship of everyone in your community. Some time you may make a remark or refuse to assist some one who has a long string of relations that will not only quit you but do all they can against you. A note book is a good thing and a family record of all the families in your neighborhood is of great value.

I know that some very bright men will say you should concentrate all you mind and energy on your professional work. I also know this is the greatest mistake that any many in any line of business can possibly make. Every single inmate in the insane asylums of the country have but one idea. You never see a man go insane who has two ideas. So it is best and safest to diversify a little, and concentrate your mind upon the things that are of especial importance to you.

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Not all fistulae in the anal region are of rectal origin. Just as the midline sinus of the coccygeal region is congenital and is either blind or leads to a sacro-coccygeal dermoid cyst, so too a fistula opening in front of the anus and extending to the midline, proceeds from a perineal dermoid or the remains of one.

MISCELLANEOUS

THERAPEUTIC LAMPS.

By J. A. Burnett, M. D., Hartshorne Oklahoma.

There are probably a greater variety of therapeutic lamps on the market than any other kind of apparatuses. Again, there is a great difference in opinion on the uses of therapeutic lamps.

I wrote Dr. C. L. Potts of Philadelphia and asked him which was the most useful, an arc or incandescent lamp, was a lamp as useful in summer as in winter and if medicine could be driven in with a lamp and he said, "An incandescient lamp is more useful than an arc lamp. I do not think that the season makes much difference except when the incandescent light bath is used to produce general sweating as in kidney disease. In such case it is probably more useful in winter. Medicine cannot be driven in with a lamp."

In reply to the same questions Dr. J. J. P. Armstrong of Douglas, Ariz., stated the Leucodescent lamp was the most useful, that a lamp was as useful in summer as in winter and that he never tried driving in remedies.

Dr. Wm. B. Snow of New York wrote as follows in answer to the same questions:

"I myself have abandoned my arc light one of 2000 candle power which was arranged for every convenience for controlling the intensity and volume of radiation for the 500 c. p. incandescent therapeutic lamp. This probably answers my view as a preference as well as anything that I could say. The therapeutic lamp is as useful to the class of cases to which it is adapted in summer as in winter only it may cause depression if applied on a humid day. I do not believe it possible, nor would be of any benefit if it were, to drive medicine into the body with a therapeutic lamp. The lamp itself produces effects upon metabolism and by the induction of hyperemia relieves local infraction in the most practical manner."

Dr. J. M. Martin of Dallas, Tex., replied to the same questions as follows:

"I prefer the arc for some work and the incandescent for other work. However if I had but one I would make it do all kinds of work when dry heat is indicated.

I am not aware that the season made any difference in the therapeutic effect of either lamp. The heat from the lamp might in limited degree promote absorption but we would not say that the lamp drives medicine into the tissues."

Dr. C. E. Skinner was asked if the lamp was as useful in summer as in winter, if medicine could be driven in with the lamp and if the lamp could take the place of a dry hot air apparatus. He said:

"Permit me to say that a therapeutic lamp is just as useful in summer as in winter. Medicines cannot be driven in to the skin with a therapeutic lamp. The therapeutic lamp cannot take the place of the dry hot air apparatus."

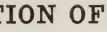
Dr. T. E. Gutner of Newark, N. J., was asked some questions. His reply is self explanitory.

"In the therapeutic line a good therapeutic lamp is useful in summer as well as in winter, depending of course entirely on the lamp. I have all kinds of therapeutic lamps and arc lamps anywhere from 500 to 2000 candle power or more. They are all good more or less but when you come down to science and put the heavy weight on therapeutic facts by clinical results there is only one lamp which I would recommend best and that is "The Alpine Sun' made by Hanovia Chemical Co. of Newark, N. J. This lamp has a

very broad field of indications. You can use it in surgery internal troubles, gynecology, dermatology and sexual diseases. Also when you consider the fact that ozone is developed while the lamp is in use which is especially valuable in pulmonary and bronchial affections and almost a specific in hay fever every fair minded investigator must admit that the purchase of such a lamp is a very good and wise investment. I do not quite understand what you mean by driving in remedies with a therapeutic lamp but I presume you mean whether the lamp has any cataphoric action or not. It has not. You cannot force any medication or remedy into the body by means of a therapeutic lamp.''

There seems to be quite a difference in opinion about driving in remedies with a lamp. I am inclined to think Dr. Martin put this about right.

It would no doubt assist with such remedies as which are partially absorbed by the skin. The Leucodescent Co. claim that a Luecodescent lamp will drive in remedies. They claim that preparations of mercury can be found in the urine in 30 minutes when used this way.



A QUESTION OF RIGHTS.

By George L. Servoss, M. D., Gardnerville, Nevada.

''Druggists in Ohio are organized to prevent dispensing of drug remedies by physicians.''—Medical World, August, 1913.

The few words quoted above tell a long story. If the druggists are successful in bringing about a condition such as they desire, it will practically put the physician out of business. That is, the large number of country doctors. And there is a movement on foot, all over the country, to force just this sort of thing upon the profession.

There is no reason why the drug and medical profesions should quarrel over any matter, whatsoever, or that either should say to the other that he should do this, or not do that. Were the druggists willing to meet the doctors half way and on an even basis, things would be different.

In times past and even to this very day in some localities, the druggists have forced the doctor to dispense in self-defense. Many of the druggists have been guilty of substitution on the orders from the doctors. Others have made changes in the formulas written by the doctors. Almost to a man, the druggists have been guilty of counter-prescribing and still continue that practice even today. It is a rare thing to spend an hour or two in a drug store and not see at least one person connected therewith treat on or two persons. And then the druggists have not only refilled many prescriptions, absolutely against the doctors' orders, but have added insult to injury through the peddling of prescriptions for certain conditions broadcast, in some instances putting them on the market as their own specialties. There are a few druggists who do not believe in a square deal for all doctors, but rather show marked favors to one or two men in the community and condemn the balance.

How about the substitutor? Not long since I saw the order of a doctor calling for elixir lactated pepsin filled with simple elixir and colored with carmine to represent the vehicle called for. We will admit that the elixir lactated pepsin may be inert, but that is no valid reason for substitution. The druggist told me that he never allowed anything to get away from him, even though he did not have all the order called for. While it may not be right to order ''proprietaries'' for our patients, we should anticipate, in such event that our prescriptions be filled as

written. It is a known fact that many substitutions of this sort have been made. How about the man who makes changes of his own accord in the doctor's prescriptions? I know of one instance wherein the druggist, as a regular things, questions every dose ordered. He bases his ideas upon the doses quoted on the packages of specific mdicines and even when shown that both the pharmacopeia and other authorities allow larger quantities than is advised by the eclectics, will, at times, reduce the amount ordered to suit his own and not the doctor's, ideas. Not only does he question the dose of fluid extracts and tinctures, but chemicals as well. Not long since he received an order for bismuth subnitrate calling for half dram doses and asked the doctor if he knew what he was doing "giving such large doses."

The counter-prescriber, what of him? He tells us that he is obliged to carry on a practice of this sort; that those for whom he prescribes "would not go to a doctor anyway," and that it is better that he "get the money" than let the person get away entirely. But would such a patient refuse to go to the doctor, were matters properly explained to him? I do not believe that he would, if all druggists united in refusing to do such practice. Let a doctor go into a community and announce that he is about to enter practice and the first question asked, "Is he licensed to practice?" If he is not, and attempts to do any practicing, his brother physicians immediately get busy and place him in durance vile. Not so the druggist however. He is allowed to go on, and on and on, forever and forever, treating all sorts of conditions over his counter and frequently without so much as a pharmacist's license. And those who busy themselves so thorougly in forcing the doctor to become properly licensed overlook illegal practice on the part of the druggist, and without even so much as a murmur to the contrary. And there are laws in every state in the union covering just this thing. If the doctor cannot dispense, let us see that the druggist is not allowed to counter-prescribe.

But little attention need be called to the druggist who, for reason of added profit to himself, and regardless as to whether the patient needs additional medicine or not refils prescriptions contrary to the doctor's orders. But the druggist who insists upon peddling the prescriptions of the doctor to other than for whom they are intended is in the same class as is the counter-prescriber, and should be dealt with in like manner, as he is doing a medical practice without even the semblance of a license. He who steals the prescription and puts it to his own uses should be wholly ignored by the profession, as are the makers and vendors of patent medicines. They cannot, any more than can the patent medicine manufacturers, and more's the pity, be parties to suit under the practice act, but their business may be practically wiped out through the lack of patronage on the part of the doctors.

The man who plays one doctor as a favorite is just a plain fool, nothing more or less. While he may gain the support and good-will of that one man, he not infrequently loses that of others in the community. This is not a thing of great importance, but it is just this sort of men who tell us that we must not dispense. They are, as a rule, very poor business men else they would not show any favor whatsoever to a single doctor.

The druggists have brought this condition of dispensing upon themselves, through their unfair treatment of the doctor. Now that the practice is becoming so general they are beginning to show that they are pinched and that the pressure is beginning to hurt. Were not such the case we would see nothing

of that sort quoted above.

To revert to our title. Is it right that the doctor should dispense? It has been a practice, time out of mind, for all doctors to furnish their remedies, if they saw fit. In the cities, of course, it is possible for the doctor to have all his demands filled promptly at the drug store. Not so in the country; not even in Ohio. This latter condition obliges the doctor to do more or less dispensing or else go out of the practice. In our Western country, where the distance between settlements are great and the drug stors correspondingly few, it would be impossible for any doctor, no matter how much he might desire to order all his remedies by prescription to do so. Should he wait for the return of the proper remedies from the nearest source of supplies his patient in many instances, would not survive.

There are two sides to every question and the one under consideration is no exception. The doctor is supposed to understand the tools of his trade, else he should get out of it, and this is a fact, the druggists to the contrary, notwithstanding, who would have us believe that the doctor knows but little, if anything, about remedies for the treatment of the sick. Consequently, knowing his tools, the doctor should have the right, conferred upon him when receiving his degree of Doctor of Medicine, and his license to practice his profession, to do as he sees fit relative to the ordering of drugs for his patients. It is too bad after all these years, that the doctor should at last be found to be such an absolute fool in matters connected with his own profession.

The druggists insist that the dispensing doctors buy only the cheapest sort of drugs and chemicals. Some of them may but they are in the minority and are not successful practicians, as they do not get results. The man who is a success, be he a prescription writer or dispenser, invariably insists upon his patient having the best obtainable remedies. Results and results only, count. On the other hand, do the druggists invariably furnish our patients with the best obtainable remedies? I am in a position, from quite an extensive experience as a traveler for pharmaceutical and chemical houses to know to the contrary. I have seen so-called good druggists buy chemicals of inferior grade, and in the State of Ohio, at that simply because of price. Furthermore I have seen prescriptions filed with just this sort of stuff. I have recently seen old fluid extracts used in prescription work the Lord only knowning what the precipitate therein might contain, or how active, or inactive the remaining fluid might be. I have seen so-called good druggists making several tinctures from fluid extracts, and that despite the teachings to the contrary. And none of these tinctures were standardized.

Today it is possible for the doctor to get his simples, all of standard character, from the manufacturers and he is just as able to make his mixtures as is the druggist; in some instances having greater ability in that direction, so I have observed. He knows that such simples are absolutely standard when leaving the laboratory, and likewise knows their condition when they are dispensed. He can get his alkaloids and other active principles of the plant drugs already prepared for exhibition and is able to readily combine the simples in any way he sees fit, and that without the intervention of the druggist.

Let the druggists go on and force the doctor to quit dispensing, but first let them clean house in good shape themselves. Let them, at least, be consistent.

AMERICAN PROCTOLOIC SOCIETY.

Patient made an uneventful operative recovery, and was discharged from the hospital on the 10th day. She gained in weight and appeared to be in the best of health. She experienced no difficulty in procuring daily evacuations with the aid of small doses of cascara.

December 15th, 1912, was the date of her last visit to the writer's office. At this time she was doing nicely. Inquiries as to her whereabouts were made and the reports were to the effect that she had returned to France. Information was received the latter part of April that patient had gone to Chicago from Indianapolis. She evidently suffered another attack of intestinal obstruction. She was operated there April 19th, 1913, and died three days later.

A Further Consideration of Sir Charles Ball's Operation for Internal Hemorrhoids. By Alfred J. Zobel, M. D., of San Francisco, Cal.

After a trial of this operation the author of the paper sums up his conclusions as to its value, as follows:—That, as a modification of the old ligature operation, it is better than the latter, and at the same time is far superior to the clamp and cautery operation, in that it takes care of and avoids the recurrence of that revoluted anal skin ring which generally becomes markedly edamatous immediately after these operations, leaving behind skin tags after the swelling subsides.

In every instance in which the essentials of Ball's technique have been followed out carefully the author's results have been exceedingly satisfactory.

The operation is recommended.

Deductions Based on an Analysis of 3000 Rectal Cases. By T. Chittenden Hill, M. D., of Boston, Mass.

The principle object of this tabulation of 3000 consecutive rectal cases was to furnish data as to the relative frequency of the various affections of the rectum and colon. There was a total of 1120 operations performed in this series, and some deductions of a practical nature were drawn from this experience. It was found that rectal ailments were more common among males than females, the ratio being three to two.

Hemorrhoids formed a large proportion, 41% of the total. Next in frequency were abscesses and fistulae, 18%, and the remaining disorders were tabulated as follows: pruritus ani 8%, anal fissure 10%, Colitis 6%, prolapsus ani and procidentia recti 3.7%, cancer of the rectum and sigmoid 2%, benign growths 1.5%, stricture 1.5%, syphilis 2%, constipation 2.8%.

Other miscellaneous conditions were recorded which made up but a fraction of one per cent, such as anal verrucca, congenital stenosis, patulous anus, pilonidal sinus, furuncles, foreign body, incontinence, coccygodynia, trauma, sigmoid diverticulitis, etc.

Personal Reminiscences Upon the Subject of Proctology. By Jos. M. Mathews, M. D., of Louisville, Ky.

The author of this very interesting paper tells of his early experiences in his chosen field of endeavor. He relates his meeting many year ago with those renowned surgeons who have made St. Mark's Hospital, of London, so famous.

Having been called "The Father of Proctology," he gratefully accepts the title, and, like a father, he offers good advice to, and will ever cherish what he now terms his offspring, the American Proctologic Society.

Z-Plastic Operation for Anal Stricture. By Wm. M. Beach, M. D., of Pittsburg, Pa.

The writer states that extensive cicatrices, resulting from trauma, and involving the partial or entire anal circumference, not infrequently resist the

usual methods employed to restore the physiologic function of the anus.

He therefore employed what he terms a Z-plastic method when operating on an anal stricture. The principle underlying the procedure is the transposition of dermic tissue in such manner as to obliterate the crest of the fibrous band.

The first incision is made along the crest of such a band. then incisions are made at right angles from both ends, but running in opposite directions, thus approximating the letter Z. The flaps thus outlined are dissected up, transposed, and sutured. Various modifications are permissible, according to the extent of the stricture.

Sphincteric Atrophy: Causes, Consequences and Treatment. By Ralph W. Jackson, M. D., of Fall River, Mass.

Muscular atrophy about the anus produces more serious consequences than hypertrophy.

The physiology of defecation is studied, and the action of the internal sphincter and of the external sphincter and levators sharply contrasted with their different innervation. This is preparatory to consideration and classification of the causes of sphincteric disuse and consequence degeneration.

Congenital causes are found in imperforate anus and congenital anovaginal cloaca. Coincidental with general weakness cases occur in infants, the aged and the extremely ill. Traumatic causes are faults of proctologic operations and after care, or obstetric lacerations, or due to prolonged divulsion by protruding piles or procidentia. Nerve causes are primarily sympathetic as in rectal stenosis, or central as in spinal cord lesions.

Degenerations or absence of one sphincter without impairment of the other is considered.

The unhappy consequences of sphincteric inadequacy are presented.

Treatment is preventive or restorative. Neither avails much when due to nerve causes, except possibly in luetic cases. Of first importance is the minimizing of trauma, both obstetric and proctologic, (especially sphincteric incision). Repair of trauma should be immediate and accurate. Later attempts are much more difficult and uncertain on account of atrophic muscular changes, and often results must depend on cicatricial contraction and adaptation of other muscles, especially the levators, to sphincteric duty. Restoration of long over-stretched muscles, is largely dependent on general treatment.

Sphincteric deficiency is a troublesome problem to every practitioner, and the prognosis is uncertain.

Further Observations on the Surgical Anatomy of the Large Bowel. By ranville S. Haines, M. D., of Louisville, Ky.

Few realize that the capacious portion of the colon is at its cecal extremity. The diameter of the average cecum is estimated at three inches, which is about the same as the rectum, though the cecum and ascending colon have a much greater capacity than the rectum and lower extremity of the sigmoid. The large intestine decreases in size from the cecum to the rectum; the descending colon measuring one and one-half inches, or even less, at its narrowest point. These physical conditions explain in a measure, the locality to which large quantities of fluids are transported when injected into the rectum.

The question of antiperistalsis in the large intestine in man is yet to be settled. It has been suggested that anastalsis may be inferred to exist in the proximal human colon for the reason that rectal enemas have been observed to traverse the entire length of the colon and escape through an artificial opening in the cecum. Also, because surgeons have attempted to stop a

fecal-fistula discharge by transplanting the ileum into the transverse colon and sigmoid, but without success. The fact that rectal enemas have been seen to pass through the cecal fistula is, he is confident, little evidence of the operation of an anti-peristaltic force.

An ordinary colon tube was introduced two or three inches into the rectum of a dog, and through a funnel inserted into the proximal end of the tube was poured in bismuth-buttermilk, and by the X ray the author observed it transverse the large intestine to the ileo-cecal junction with no sign of anti-peristaltic movements. Similar experiments were made on children with corroborating observations. He has seen a pint of bismuth in suspension, when introduced into the rectum of the adult, pass around to the cecum in a few minutes with no evidence of aid by anastalsis.

Under normal conditions peristalsis in the large bowel is a slow process, and it is no more than natural to suppose that anastalsis is also slow in operation. The brief time, then, required for fluids to pass from the rectum to the cecum compels us to consider the influence of other and more potent agents on the intestinal contents. Two factors are in operation when fluids are conveyed from the rectum to the cecum. The first is the distensible and elastic nature of the intestinal tube; and the second is the hydraulic principle which controls fluids wherever they may be. If fluid is forced rapidly into the rectum that organ will be seen to be widely distended; but this same fluid can be seen to make its way up the intestinal tube along the path of least resistance. The distended rectum, because of its elastic nature, presses upon the contents till every drop of fluid within its lumen is subjected to an equal pressure. So if additional fluid is forced into the rectum the same factors will continue to operate.

If the ileum is transplanted into the transverse colon or sigmoid the watery intestinal contents will be forced by the elastic intestinal tube in the direction of least resistance. The right segment of the colon is the capacious portion of the large bowel, so if fluids are under greater intestinal pressure in the lower bowel the fluid contents will travel up the cecum.

The author says, that even if we do admit the existence of anastalsis in normal conditions of the colon, he does not believe it to be an important factor in conveying fluids from the rectum up into the colon.

Hanes had a series of three X ray pictures made on the same individual to show what actually happens when tubes are introduced into the bowel. The first shows a thirteen inch proctoscope introduced its entire length. The distal end is one inch above the umbilicus. The second shows an ordinary colon tube introduced its full length after the removal of the proctoscope. The tube passed along the sigmoid up to the highest point, (one inch above the umbilicus), and then turned upon itself, the distal end passing back into the rectum. The third radiograph shows the bowel injected with bismuth buttermilk and the thirteen inch sigmoidscope introduced again. This picture shows that it is impossible to pass any intrument high up in a normal colon, except by the greatest accident. The sigmoid is lifted up into the abdominal cavity; its lower arm is occupied by bismuth and the metal tube; while the upper segment of the sigmoid is seen very distinctly where it has dropped back from a point opposite the umbilicus into the pelvis to its junction with the lower extremity of the colon. He claims the latter radiograph proves that it is impossible to pass a non-flexible instrument beyond the first half of the sigmoid.

To control the outflow of fecal ma-

terial in colostomies the author has found, in five cases operated since January of this year, that the hard rubber rod can be allowed to remain permanently when used as in the Maydl operation. The opening in the intestine is above the rod. A thin gauze dressing is applied over the bowel, and a strip of gauze is thrown around the knuckle of the intestine and overlying gauze is then tide under the supporting rod. The strip of gauze constricts both the upper and lower segments of the bowel, and exerts a most satisfactory control over these artificial openings.

The Ano-Rectal iLne: Its Clinical Significance. By Collier F. Martin, M. D. of Philadelphia Pa.

After discussing the development of the anus and rectum Martin states that the ano rectal line, or dentate border, has a very important clinical significance, in that it is the point at which both the blood supply and the nerve supply become differentiated. Above it, the rectum is supplied only with visceral or sympathetic nerve fibers, while below it, the anus and its surrounding structures are supplied with spinal nerves, and by sympathetic filaments. These spinal nerves carry sensory impulses common to nerves having specialized cutaneous nerve-endings.

Below the ano rectal line, as evidence of irritation of the spinal innervation, sensory disturbances are expressed in terms of pain, itching, formication and in altercations such as dryness and moisture. Stimuli producing these sensory disturbances show their presence by exciting motor contraction, or by inducing alterations in secretion.

Above the ano rectal line all of the specialized spinal sensations are absent, only the visceral sensations being present. In the rectum it is only pressure and muscle-sense that appeal to our consciousnss. This sensation is translated in the brain into a desire for stool, which desire is inhibited or assisted voluntarily, as occasion may require.

Excessive spasm of the involuntary muscles supplied by visceral nerves produces an unpleasant sensation, which differs from pain of spinal origin in that it is difficult to localize, and may be described more as an ache, which is difficult to bear and exhausting to the patient.

Lesions of the crypts of Morgagni, since they involve both the visceral nerve supply of the rectum and the spinal innervation of the anus, are associated with many disturbances of the reflexes.

Infection, and malignant processes, occurring above the dentate border, tend to spread upwards, by way of the deep lymphatics, to the pelvic or urogenital organs, or to the liver, via the portal system. Below the ano rectal line superficial abscesses result from infections of the proctodeum and the rectal crypts. Malignancy here is associated frequently with extension of the inguinal glands.

In general there is a marked tendency for pathologic processes to limit their invasion to the embryonic structure in which they began; the ano rectal line being the "great divide" between the ectodermic and the entodermic structures. Rectal infection, and malignancy, rarely extend below the dentate border, while anal pathology usually remains below this line and the levator ani muscles.

Ano rectal symptomatology is equally differentiated. The subjective symptoms of a pathologic process bear little relationship to the lesion, per se, but depend upon the interference with the functions of the spinal or sympathetic nerve supply of the tissues involved, whether this interference be mechanical, inflammatory or functional.

(To be Continued.)

CHRONIC DISEASES.

By J. A. Burnett, M. D., Hartshorne, Oklahoma.

A short time ago I placed the following on my professional card: "Special Attention to General Chronic Diseases and Diseases of Children." I am glad I did this for this is the class of cases I prefer to treat. Most chronic cases and most diseases of children if taken in time are suitable for office treatment. I prefer office practice or in other words devote special attention to office practice.

Chronic diseases are usually neglected by the average physician. The majority of general practitioners do not like to treat chronic cases. One of the reasons why most physicians do not like to treat chronic diseases is because the patient as a rule gets in too big a hurry for a cure and causes the physician undue anxiety which disgusts him. One thing sure a patient with a chronic disease must have chronic treatment. In other words it takes longer to cure a chronic disease than an acute case. One thing that interests me in diseases of children is the amount of material one has at hand. I saw the statement made once that seven-tenths of a general practitioner's practice was among diseases of children.

In an article on "Chronic Diseases" by C. E. Henry of Minneapolis, Minn., Aug., 1905, Wisconsin Medical Recorder he says:

"No one method will cure all diseases.

"No one method will cure all cases of some one disease.

"These assertions I believe to be absolutely true. It is because I believe them to be true that I do not confine myself to any one school or system of practice.

"When a patient comes to me for treatment I take down his personal observations of the case and then I look him over carefully and record my own observations. After this I prescribe for him as in my judgment seems fit. In a great majority of chronic cases I see my treatment is a combination of two or more systems of practice."

Dr. Henry mentions the importance of recognizing reflex actions.

The most important reflex actions are from the rectum and generative organs. In all chronic diseases the rectum should receive due attention.

Contracted sphincter muscle in men, women and children will cause a variety of reflex troubles. Prenuptial adhesions in men, women and children also cause a variety of reflex troubles.

Circumcision is an important operation when needed and should not be neglected. Female circumcision is as important as male circumcision. Occasionally breaking up the adhesions will answer in place of circumcision.

In speaking of the use of electricity, Dr. Henry says "It has been especially in the treatment of chronic diseases peculiar to women that I have had the satisfaction of relieving conditions declared by others to be amenable only to radical surgical measures."

Dr. Henry mentions the value of vibration and the hot air apparatus as well as what is now known by the name of spondylotherapy. I consider Dr. Henry's article a good one. I agree with him in combining systems and in his opinion of the value of electricity in diseases of women as well as the value of vibration and the hot air apparatus.

There are many mechanical measures that are of value in the treatment of chronic disease and we do not and should not depend upon drugs entirely.

No physician can be successful in office practice or in chronic diseases unless he has a proper equipment.

The Wisconsin
Medical Recorder

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F. W. VAN KIRK, M. D. }
PUBLISHED BY
WISCONSIN MEDICAL RECORDER
JANESVILLE, WIS.

SUBSCRIPTION PRICE

$1.00 per Year in Advance; Single Copies 10c in the United States and Mexico.
$1.25 per Year in Canada.
$1.50 per Year in Foreign Countries in the Postal Union.

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LETTERS, CASE REPORTS AND QUESTIONS are desired for our Discussion Department.

We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Reports and items of interest are gladly received

VOL. 16 AUGUST, 1913 No. 8

Hardly a week goes by that The Recorder does not receive one or more letters from different subscribers, stating their approval of the subjects written upon in our editorial columns.

It has been our aim to write on topics that are of interest to the general practitioner, and we find that topics that deal with our daily practice are the ones that please the general reader. I have been requested to write an editorial on "The use of the Stethoscope" in general work, other than in connection with our studies of the Heart and Lungs and it will be a pleasure for me to do so in one of our early issues.

Some time ago we published an editorial in "Medical Reading" and it seems a fit time to now say a few words about the indiscriminate buying of surgical instruments.

As we all know, we are visited often, and the visits are becoming more frequent each year, by representatives of Surgical Instrument houses, whose business it is to sell that Doctor what he needs.

Each time one of these representatives puts in an appearance he has a number of new instruments and I must admit it is a big temptation to buy them and many of us do and find that after buying the same we never use them. I find that the biggest and best surgeons use but few instruments, and those that they use are as simple as can be obtained to do the required work. I also note that the majority of new instruments are sold to the men in the smaller towns. It is of course the business of instrument houses to make instruments and it is the business of their salesmen to sell the same, therefore let it be the business of the average physician to buy only the actual instruments that he can use in his work, for we all know that we can all do the best work with the instruments we are used to work with. The time has passed when a physician must have a great display of medical books or a great display of Surgical Instruments in his office in order to get patients to come to him—what people are looking for are results, and one successful case will do more for our reputation in a community than a cart load of medical books or instruments. A word to the wise is sufficient.

ANNOUNCEMENT.

The Annual Convention and Clinic of the American Association of Orificial Surgeons, Chicago, Sept. 23rd to 26th inclusive.

All physicians of all schools are invited to attend both. Dr. E. H. Pratt, father of Orificial Surgery, will personally operate and lecture. The Clinic will be under the supervision of a fac-

ulty of teachers composed of prominent Orificial surgeons. At the Clinic surgical methods of cure for all chronic diseases will be demonstrated daily: Asthma, Dyspepsia, Pâralysis, Eczema, and Rheumatism, as well as diseases that present simply an aggravated attack of local pathology will be treated. It will pay you, Doctor, to attend. Surgeons and general practitioners throughout the country testify that Orificial Surgery applied in everyday practice has added thousands of dollars to their reputations for curing chronics.

As you may know, Orifiical Surgery applies particularly to the freeing of sympathetic nerve impingements at the orifices of the body. Those attending will be taught to recognize and correct Orifiical defects.

The Clinic is free. The association will look after all details in an endeavor to broaden the scope of this great therapeutic measure. The Clinic will be held in the amphitheater of the Francis E. Willard Hospital, 710 So. Lincoln St., across from the Cook County Hospital.

In the Convention papers will be read by prominent men upon the Philosophy of Orificial Surgery, its technique, its application in the treatment of refractory chronic ailments. The headquarters for the Convention will be the Hotel La Salle, La Salle at Madison St. All its sessions, programs and committee meetings will be held therein. For further particulars you are invited to address the Secretary, W. A. Guild, M. S., M. D., Suite 230, The Utica, Des Moines, Iowa.

GELSEMIUM IN PELLAGRA.

Roy Beosser, of Atlanta, Ga., Charlotte Medical Journal, July, 1913, places on record a series of 19 cases of pellagra treated with gelsemium. All were of severe type. Two were serious and as one of these died (of pneumonia) after six weeks' treatment of utera pellagra and the other died after four days they may be excluded since the treatment had not time to develop its remedial process. All the others were cured, or well advanced toward cure, after treatment varying in duration from 2½ to 9 months. All those treated more than six months were reported as cured. Th gain in wight was up to 50 lbs. The loss which affected having been 10 to 85 lbs.

Gelsemium alone was used to meet th pellagrous symptoms. Other treatment being dietetic and symptomsatic. A fluid extract from the green root was mployed, the usual dose being three drops three tims a day, after meals reduced to two and then one drop and continud until all pellagrous symptoms had disappeared. Excessive hemorrhages characterized six cass.

The beneficial action of gelsemium was ascribd to relief of the irritation of the nerve centers, this being due to toxemia. This cntric action explains why gelsemium relieves such disease symptoms as diarrhea, vrtigo, burning hands and feet, and menorrhagia. Very severe diarrhea ncessity opium promptly yielded to glsmium; as also did epigastric tenderness, anorexia, and the buecal and lingual inflammation and the irritability of the bladder.

Dr. Blosser concludes that gelsemium is a much less dangerous drug than is generally supposed. Since adoption the product of a single manufacturer he "has not observed the slightest depressing or other untoward effect in any cases. It seems probable that such actions of standing in the past have been due to variability in the method of manufacture or to preparations which have been allowed to evaporate or to throw down a sediment."

We have frequently called attention to the value of gelsemium as a sedative

of the cerebral centers, beneficially supplanting them far too common use of opiates and affording relief without their disadvantages. Of course when our antampsflte employs a whole-plant preparation he gets an uncertain and varying combination of the sedative gelsemium and the strichnine-like gelsemium. It would seem from Dr. Blosser's description that in his preparation the two were fairly balanced, and he secured the primary sedation of gelsemium, controlled by the slowr developing stimulation of gelsemium. But this is taking chances not warranted by the present state of pharmacology. If there are values in gelsemium, lapis hewit it isolated and tried out, so that may be prepared to utiliez it intelligently, when, where and in what doses we find it indicated and not dpend on the chance combination to be developed by each plant under such varying conditions as may happen.

ABSTRACTS

TONSILLITIS.

Clara M. Davis, Lansing, Mich. (Journal A. M. A.. August 9), reports a case of severe tonsillitis following the use of staphylococcus spray for diphtheria. The patient was instructed to spray the nose and the throat three times a day with a pure culture in sterile normal salt solution. The tonsillitis symptoms appeared on the second day and smears showed abundant staphylococcus growth with a few diphtheria bacilli on the third day of spraying. Five days later the diphtheria bacilla had disappeared, but there were numerous staphylococci, and a few pneumococci and streptococci. The tonsillitis attack was much more severe to the patient subjectively than the diphtheria.

LACTIC ACID BACILLUS SPRAY.

H. B. Wood, Rochester, Minn. (Journal A. M. A. August 9) says that four cases of diphtheria in the Rochester State Hospital for the insane occurred in January and February, 1913, which were promptly traced to a carrier—a kitchen attendant—after whose isolation no more cases occurred. After seven weeks treatment by various methods, of the healthy carrier, with still persistent positive cultures, nose and throat spraying with Bacillus acidi lactis was employed on the suggestion of Dr. A. H. Sanford, Bacteriologist of St. Mary's Hospital, and in a week the cultures were negative and remained so. The method was next employed in four cases in May, 1913, and cultures became negative and the membrane disappeared in still shorter periods of time—three days. Wood offers these results to the profession rather guardedly and says it will be well for others to report their experience with this method, not only in the disinfection of carriers but also in the treatment of the disease. Perhaps the country physician away from the laboratory facilities may find some advantage in swabbing or douching the nose and throat with sour milk.

SODIUM SALICYLATE.

As a result of a co-operative investigation as to relative therapeutic value of sodium salicylate prepared from natural sources, and of sodium salicylate prepared by synthetic method, A. W. Hewlett, Ann Arbor, Mich. (Journal A. M. A., August 2)(finds no essential differences between the two. Eighty-two physicians expressed a willingness to co-operate in the investigation but the conclusions are based on the reports from twenty-seven clinical investigators, embodying approximately 230 separate observations on the ef-

fect of the marked salicylate powders which were sent them, without stating which were natural and which were synthetic. Some observations had to be discarded because the investigators had not noted the numbers on the boxes from which the powders were taken. The agreement in the therapeutic effects was demonstrated by an analysis of the reports submitted as well as by the expressed opinions of the users, the slight variations in one direction or the other being only such as might be expected, and might be said to be surprisingly small. The results of the fifteen most complete reports are shown in tabulated form.

THE TENDENCY TO FADS.

A tendency in this country to taking up fads of all kinds as shown in its medical history, is remarked by Joseph Zeisler, Chicago (Journal A. M. A., August 9). To mention, he says, the more noteworthy fads relating to medicine in different times, he cites the practice of orchidectomy a few years ago and later the Bottini operation, the sacrifice of the avaries at one time, the prevalence of appendectomy at present, the fad of nerve stretching and the injection of paraffin for cosmetic purposes, and expresses his opinion that the extent to which Freud's psychanalysis has been exploited in neurologic literature also borders on faddism| Coming to fads more interesting to dermatologists, he refers to the too indiscriminate use of the X-ray and the changing fashions in the treatment of syphilis. He feels like severely criticizing one phase of the most modern treatment of lues—the exposure by surgery of the vein into which salvarsan is to be injected. Recent overexploitation of vaccine treatment and the stress which is laid on anaphylaxis as a cause of skin disease is also included among the fads. One of the greatest results of modern serologic studies is the so-called Wassermann test, the value of which is fully established in the diagnosis of syphilis; but he also thinks this excellent method is also being abused and made a fad of as a sort of diagnostic pons asinorum in non-specific diseases. The pathologic laboratory should not be used in the pursuit of fads. Clinical knowledge is in danger of being neglected in its favor and the two must work together if we are to do our best work.

CONSENT TO OPERATION.

W. S. Wermuth, of the Chicago Bar, Chicago (Journal A. M. A., August 9), gives a review of the legal status of the question of consent to operation as shown in the leading cases from the court reports. Some of the decisions seem to be unjust from a medical point of view, but they are presumably the law as it stands at the present time. His summary of the whole is given as follows: "The safest practice is to obtain the consent of the patient. If she be a wife, that is probably sufficient. If the patient is a child, the consent of the parent should be obtained. If the patient cannot consent, every effort should be made to gain the consent of some relative. Carefully explain the scope of the proposed operation to the patient or, if that be clearly inadvisable, to the nearest relative. Operate no more than outlined except in dire emergency."

Tuberculin continues to hold a valuable place as a means of diagnosis in surgical tuberculosis. Pain and tenderness at the site of the lesion after an injection of tuberculin points strongly towards tuberculosis. The dose should be small (1-10th millipramme O. T.) or large ½ milligramme), according as the reaction to a preliminary von Pirquet test is marked or absent.

X-RAY PROTECTION.

We cannot too strongly emphasize the importance of personal protection to the operator from the rays. It is believed that with the modern apparatus there should be no more danger to the operator in using the ray, than there is in using a gas jet. If you put your finger in the flame. you will burn it; if you are expose to the ray, you will be burned. There is no need of either.

To begin with: the tube should be put in some efficient shield, preferably lead glass, although under certain conditions an impregnated rubber shield is very satisfactory for light work. There are two objections to the rubber shield when used with heavy apparatus. The first is: you cannot see your tube, and the second is: the heat is retained and there is more probability of overheating the tube or running it low than there is with the glass shield. Both of these shieldst prevent the stray rays from general diffusion. Of course, these shields must be supported on some form of stand or table.

The operator, especially with a large equipment, should be behind a lead screen, or better yet, in a separate room, the wall of which should be covered with lead not less than 1-16 inch in thickness, and if the direct rays strike this wall, even thicker. A lead glass window or windows, should be put in so that the tube and patient may be viewed.

If the fluroscope is used at all, the operator should be protected by a heavy apron, gloves, and lead glass spectacles. Lead glass should also be used over the fluroscope screen, or the screen used in connection with a mirror, or both.

The old saying that "an ounce of prevention is worth a pound of cure" is very apropos.

Dr. G. S. Hanes, Louisville, Ky., had a series of three X-ray pictures made on the same individual to show what actually happens when tubes are introduced into the bowel. The first shows a thirteen inch proctoscope introduced its entire length. The distal end is one inch above the umbilicus. The second, shows an ordinary colon tube introduced its full length after the removal of the proctoscope. The tube passed along the sigmoid up to the highest point, (one inch above the umbilicus), and then turned upon itself, the distal end passing back into the rectum. The third radiograph shows the bowel injected with bismuth buttermilk, and the thirteen inch sigmoidoscope introduced again. This picture shows that it is impossible to pass any instrument high up in a normal colon, except by the greatest accident. The sigmoid is lifted up into the abdominal cavity; its lower arm is occupied by bismuth and the metal tube; while the upper segment of the sigmoid is seen very distinctly where it has dropped back from a point opposite the umbilicus into the pelvis to its junction with the lower extremity of the colon. He claims the letter radiograph proves that it is impossible to pass a non-flexible instrument beyond the first half of the sigmoid.

An ordinary colon tube was introduced two or three inches into the rectum of a dog, and through a funnel inserted into the proximal end of the tube was poured in bismuth-buttermilk and by the X-ray the author observed it traverse the large intestine to the ileo-cecal junction with no sign of antiperistaltic movements. Similar experiments were made on children with corroborating observations. He has seen a pint of bismuth in suspension, when introduced into the rectum of an adult, pass around to the cecum in a few minutes with no evidence of aid by anastalsis.

Wisconsin Medical Recorder

A Monthly Journal of Medicine and Surgery, devoted to the best interests of the profession

VOL. XVI SEPTEMBER, 1913 No. 9

ARTERIO SCLEROSIS

G. G. BURDICK, M. D. and THEODORE C. F. ABEL, M. D., Chicago

This diagnosis, which causes a chill in many human hearts, will repay study.

In this condition we have the final payment of interest upon a misspent life.

The goal is reached through many channels, but the results are certain, no matter by what road the victim decides to travel.

It is probable that the alcoholic route is one of the easiest and quickest ways of reaching this condition, especially in those people who have liver insufficiency as a handicap in life. Curiously enough we have numerous individuals who are apparently immune to the effect of alcohol. I have one friend who gives me his word of honor that he has never drank less than forty glasses of whiskey a day for the last twenty years, yet he has never been sick nor drunk in his life. He shows no variation from the normal by any laboratory examination that can be made. He can apparently drink alcohol like a gasoline engine can burn gasoline, and with as little harm to himself.

We have numerous other people to whom alcohol is a violent poison, producing nausea, headache, delirium and a malaise lasting several days. Neither of these type of people suffer much from alcohol. One because he is immune and uses it as a food stuff, and the other because of inability to consume sufficent alcohol to do any permanent danger.

It is among the so-called moderate drinkers that we must find our candidates for arterio-sclerosis. These people are steady drinkers, seldom drink, but invariably are good livers; the best is none too good, and they eat more than their share of the good things of life.

These people all show variation from the normal that increases year by year, as their resistance is gradually overcome by improper methods of life. Low water drinking, constipation, immense food wastes in the colon, all undergoing an active putrefaction or fermentation in the bowel. Enormous work is thrown upon the liver. This excellent organ begins to fail in efficiency. More and more of the toxic substances escape into the blood stream, causing irritation of the blood vessels, increasing the blood pressure by irritation of the great sympathetic nervous system, before they are gradually eliminated by the kidneys. So great a volume of poisonous waste escapes in this manner that gradually a permanent rise in blood pressure takes place, which increases year by year until the danger point of the cerebral vessel is reached and the serio-comic tragedy is terminated by a hemorrhage of the brain.

In syphilis we have another source

of diseased vessels but seldom to the extent that the profesion believes.

It is generally believed that alcohol is the only popular intoxicant, but this is wrong. People who are under the stimulation of protein broths are apt to do just as many foolish things as well as their alcoholic brothers.

The moral sense is blunted, the sexual instinct overstimulated, and a certain Dutch courage is inspired in an otherwise timid man. Criminal cunning is the predominating trait in those individuals who suffer from amino-acid intoxication. We feed fighting dogs and roosers raw meat until they are all nerves in order to increase their fighting capacity and lower their sensation to pain. We feed our millionaires on high nitrogen foods and champagne so as to blunt their moral sense. This enables them to hire girls for $4.00 a week, who they know cannot live decently on less than eight. This allows them to fire their old men who laid the foundation of success and supersede them with women at a fourth of their wages. It eases their conscience when they rig the market and sell the dear public nicely engraved stock certificates which they know to be worthless. But what's the use? Not all our insane people are in the asylums, and the dear public would not be happy if they were not swindled occasionally. All of this is the proluct of an unstable nervous system, absolutely abnormal, and far from the natural instinct of the better nature.

Arterio-sclerosis is a disease of the well-to-do. Opportunities to abuse the body must have existed over many years. Over-eating, drinking, sedentary habits, and a train of evils ensue that follow this method of living and eventually cause degenerative changes in the arteries which are destructive of their elasticity.

All of these people have many times consulted their medical advisers and yet the process has continued.

What is wrong with our profession when they fail to see the trend of events, and sound a word of warning in time to guide these people along the right path. It is simple to stop the process; radical revision in their methods of living is imperaive. All complicating toxemias must be relieved, physical culture or physical exercise must be insisted upon, and upon a rational system of living improvement is steady . The blood pressure begins to fall and keeps falling to well within normal limits. In plethoric individuals with a dangerous blood pressure, phlebotomy is indicated, and should be carried out promptly. This procedure will cause a fall in blood pressure of from 20 to 40 m. m. in 24 hours, which can be farther helped by proper attention to diet and the right ways of living. Hot soaking baths at 108 degrees, carried out three times a week, followed by a cold immersion and alcohol rub, will relieve the skin of much poisonous coloring matter. In the case of confirmed smokers, the acrid pyridin compounds are removed in large quantities. A carbohydrate diet with fruits, fats and vegetables, and a constant supply of alkali until the liver has had an opportunity to recover its function.

Where specific lues is proven by either the Wasserman or the Luetin test, appropriate treatment for his condition should be undertaken.

Many times the high blood pressure is simply due to amino-acid poisoning and disappears promptly upon the withdrawal of these food-stuffs from the diet, so that a physician is not justified in making a diagnosis of arterio-sclerosis from the blood pressure alone.

However, he can predict that this trouble is inevitable if he finds a pa-

tient with a high blood pressure, a coated tongue, foul breath and a badly stained sclera, if the patient don't mend his ways; and a kindness is done any man by telling him the brutal truth without fear or favor.

INFANTILE SCURVY. BARLOW'S DISEASE

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Some 60 years ago Moeller in Germany describel a peculiar condition in infancy that he called "acute rickets," in which, in addition to typical rachitic changes, there occurred "swelling and pseudo-paralysis of the extremities due to sub-peritoneal hemorrhages exophthalmus due to orbital hemorrhage, and occasionally hemorrhages from the gums." Over 200 years before this Glisson (1651) had described the same condition and had pointed out its non-identity with rickets. Comparatively little attention was given to the subject till interest was again revived in it by Barlow in 1883. Since that time the interest in this peculiar disease has increased constantly and today it boasts a literature of some 500 articles. So accurate, however, had been Barlow's observations that comparatively little has been added to our knowledge of the disease since his time. He emphasized the similarity of the condition to scurvy in the adult and considered the presence of rickets as non-essential. He proposed that the symptom complex be designated "Infantile scurvy," and all subsequent investigations have confirmed the soundness of his views.

Barlow's Disease, or as the Germans prefer to call it, Moeller-Barlow's Disease (M.-B. K.), is interesting from several angles. With striking symptoms that make it among the most easily recognizable of disease; well known for at least 40 years; with an enormous literature; and sufficiently frequent that cases must inevitably come within the experience of every physician who practices among babies, it is, nevertheless up to the present time almost never recognized in general practice. This is all the sadder because these little patients suffer intensely, and because they can be relieved and cured with a rapidity that seeks a parallel in all medicine. An infant that seems to the parents and to the doctor to be in a progressively hopeless condition; whose every move ment is an agony of pain; whose limbs lie swollen and immovable as if paralyzed; this infant that has grown steadily worse in spite of all treatment, can be made comfortable in 2 or 3 days and well and happy within 1, or at most 2 weeks, and with no other treatment than a simple change in its diet.

I think I need no apology for briefly discussing this subject in this place.

The physician who is practically familiar with the clinical features of infantile scurvy can commonly recognize it at a glance. The mother who comes into the consulting room walking almost on tiptoe to avoid any jar to the baby that lies in a pillow, or on her extended arms, brings the diagnosis with her. She has learned that the slightest movement, and especially any sudden jar of the affected leg, or arm, will bring out a cry of pain. The painful nature of the trouble is soon made evident to the physician himself by the fact that the child crys pitifully at his mere approach. Such pain is almost never absent—occurs with practically nothing else at this period of life—and is alone diagnostic.

The mother's story is equally con-

vincing. For some time the baby has not been well, is cross and irritable, but most noticeable is the fact that the baby cries when handled. For weeks, even months, the baby has cried as if in severe pain whenever changed, or bathed, or picked up and finally when merely approached even by the mother. The mother can usually state definitely that the pain is located in one or both legs, or possibly in an arm.

A more critical examination will now reveal the fact that this pain is located near the ends of the long bones of the legs or the arms. By far the most common site is the leg just above the ankle, and above the knee. In mild, or early cases, the only symptom of scurvy may be tenderness above the ankle or the knee, but this alone in the proper setting and in the absence of some other obvious cause, is enough to warrant a positive diagnosis.

It is further noticeable in all but the earliest cases that there is swelling apparently of the bone, at the point of tenderness. In the earlier stages this swelling may not be evident to the eye, but a tightly drawn tape measure about the affected part will show an increasing in circumference over the corresponding point in the other limb. In advanced cases this smooth, painful, swelling may almost completely encircle the bone, may be so thick as to cause the leg to seem nearly twice the size of its mate, and may extend over half of the length of the shaft of the bone involved. In extreme cases there may be a separation of the epiphysis. These swellings are always close up to the joints, but do not involve the joints themselves. They are never red, nor hot, are usually of normal flesh color but may be bluish.

These bone swellings are due to hemorrhages under the periosteum of the bones, occasionally extending beyond the periosteum into the adjacent soft tissues. This explains the smooth, spindle shaped swelling and the excessive pain due to the involvement of the periosteum and its forcible separation from the bone.

This brings us naturally to the second equally diagostic symptom, the presence of purple, swollen, spongy, gums that bleed often at the slightest touch and that may seriously interfere with nursing from a bottle. The teeth are often loose, may even drop out, and are sometimes quite buried in the swollen gums. The diagnostic points about the gums are the purple color, the sponginess, the swelling even though only very slight, and the fact that these occur only in a narrow area about the teeth, and over teeth that are nearly through, leaving the rest of the gum normal.

Only infrequently hemorrhages occur in other parts of the body; over the ribs; in the orbit giving rise to exophthalmus; in the skin as ecchymoses and extravasations of blood; and finally from serous and mucous surfaces as free hemorrhages. It is well to bear in mind that hematuria may be the only symptom of infantile scurvy.

The general condition of these babies is often but little below normal at first. As the disease progresses they become pale, emaciated, sick, cachectic and if untreated will finally succumb, either to the disease itself or to some intercurrent infection. In advanced cases they lie motionless on their backs in a very characteristic posture with legs and thighs semi-flexed with outward rotation at the hip. The absence of all voluntary movements leads to a pseudo-paralysis due to pain, that is often mistaken for a true paralysis. There is nearly always a mild fever the temperature running between 99 and 102 degrees F.

The diagnosis of scurvy rarely offers any difficulty whatever to the physician who has once seen a case, or who

is familiar with the two symptoms that charactertize it, swollen, painful legs and the characteristic gums, in an infant. The cases that occur before the eruption of teeth and hence with no gum changes, offer the greatest difficulties. Pain or tenderness in one or both legs, above the ankle or knee and especially if accompanied by only the slightest swelling, in an infant that has been fed on a diet that is prone to lead to scurvy, can safely be considered scorbutic unless there is some other evident cause for it. Hematuria in an infant should suggest scury first. In any doubtful case the therapeutic test will quickly decide whether the condition is scorbutic or not.

In any painful affection of the legs not due to trauma or infection in an infant, if the physician will think of scurvy he will usually have no trouble in making a diagnosis. Unfortunately the infant is only too often looked upon as a miniature man. As a result probably nine-tenths of these cases are diagnosed as rheumatism, or as "something more like rheumatism than any thing else," in spite of the fact that there is bone not joint, involvement, there there is a peculiar gingivitis, and that rheumatism is practically unknown at the very age in which scruvy is most frequent. The same is true of the diagnosis of purpura rheumatism made in one case with ecchymoses.

It is not hard to understand a diagnosis of neuritis in a case where the only evident symptom, in a florid but toothless baby was pain and tenderness above one ankle with only enough swelling to make it necessary to use a tape measure to find it. How easily the diagnosis of osteomyelitis, or sarcoma, can be made is evident, especially if only one bone is involved, and more than one case has been operated on and still more of them have had a narrow escape.

Again when both arms and legs are involved and the child lies day after day without moving a limb, it is not hard to see how poliomyelitis, or some peculiar progressive paralysis is diagnosed—although the swelling, extreme pain and tenderness, pseudo-paralysis due to pain not inability to move, and especially the gradual onset, should exclude such a diagnosis.

The condition is sometimes confounded with the acute swollen painful joints of congenital syphilis—but here the joint itself is involved, it usually occurs during the first 6 months—when scurvy is very rare, and almost invariably other signs of congenital lues are present.

Finally trauma can easily be blamed for certain lesions, i. e. painful swelling, with extravasation of blood.

While rarely necessary for a diagnosis, in doubtful cases or in cases where demonstrable evidence of scurvy is desired the X-Ray is of value. The hemorrhages show as shadows about the affectel bones. More interesting, however is a distinct dark, smooth, transverse band just proximal to the epiphyseal cartilage, found even in bones not involved in gross scorbutic changes.

The value of the therapeutic diagnostic test in all doubtful cases cannot be overestimated.

The etiology of infantile scurvy is another of its interesting features. Practically i. e. as a basis for rational treatment the etiology is perfectly clear; theoretically, the essential cause of scurvy is as little known now as it was to Barlow, in spite of the fact that it has attracted more attention than almost any other pediatric subject. The diet is unquestionably the main feature. Only a small number of babies, however, out of a large number fed on the same diet will develop scurvy. It is therefore very probable that idiosyncrasy, or at least individuality, plays a not unimportant part.

The exact dietetic agent that produces scurvy is not known—whether it is an active scurvy producing factor, or whether the food is wanting, as is generally believed, in some anti-scorbutic property. It is well known that it occurs most commonly on condensed milk, dried milk foods and other proprietary foods especially those used without fresh milk. It is also known that it practically never occurs on the breast, almost never on properly modified, nor straight raw cow's milk, very rarely on milk boiled for only a short time, nor on pasteurized milk. It has been thought quite universally in this country that the important factor in the the production of scurvy is the feeding of a dead-food—a food that has been heated and so deprived of an anti-scorbutic property that does not resist heat. That heat alone is not the only factor however, seems certain. In France where all milk is boiled for babies scurvy is very rare. On the other hand scurvy can be cured by the use of boiled milk as I have recently demonstrated in a severe case that got well with the usual promptness on straight milk boiled 5 minutes, without anything else. There is considerable evidence that prolonged boiling of the milk has a greater tendency to produce scurvy than boiling for only a few minutes. In another case that recently came under my observation the child developed scurvy on raw milk, but the milk was modified as for a baby of 3 months instead of 10 months. In this case proprietary food had been added to the milk, and it is by no means certain that scurvy is not caused by some active agent that occurs in a preserved food. The French pediatricians again claim, with apparently good reason, that scurvy never occurs on undiluted boiled milk, but that it is caused by milk greatly diluted and otherwise modified. The temperature the evidences of inflammation, etc., have led some to look upon scurvy as an infectious disease. Whatever the causative agent, it is unquestionably associated not only with the feeding of certain foods, but only with the prolonged feeding with them. Infantile scurvy rarely occurs on any food, no matter how scrobutic, unless it is given for at least several months.

We can sum up our present knowledge of the subject by saying that the etiology of scurvy is apparently complex and that 3 factors seem to enter into it:

1. The prolonged use of a preserved food; less frequently of milk that has been heated for a long time, i. e., the absence of fresh milk.

2. Individual, or familial, predisposition.

3. The use of a greatly diluted, or improperly modified milk—fresh or boiled.

Infantile scurvy occurs very rarely in the first half of the first year; predominatingly in the 2nd half; and rarely after the 18th month.

The explanation for this is doubtless in the fact that it has rarely had time, or occasion to develope before the 6th month and after the first year, or 18th month, the child eats other foods that are anti-scrobutic. Apparently more cases occur among the well to do than among the poor. Hygiene, fresh air, cleanliness and general care play a part. These babies usually show no preceding nutritional disturbance except such as comes with prolonged use of an incomplete food. In some of them, however, the outbreak is preceded by a digestive disturbance with diarhhoea.

The treatment of scurvy is one of the refreshing chapters in therapeutic medicine. Whatever food the child has had is replaced by fresh raw milk. Human milk is, of course, highly curative, but at this age no great advantages over cow's milk which is usually well

borne. The milk should be given raw in such modification as seems indicated in the particular case. If the baby is old enough it is preferable to give it undiluted and unmodified. It is better not to use any proprietary infant food, so long as we do not know their exact relationship to scurvy. If the milk is questionable, or if it seems indicated for other reasons that boiled rather than raw milk should be used, the same results can be obtained with milk boiled only 2 or 3 minutes, or pasteurizing If the baby is very young and cannot take fresh cow's milk then a wet nurse is indicated. If it has occurred in an infant that is getting fresh cow's milk, then it is well to give it as nearly undiluted as possible, and if some infant food has been added to it this must be omitted. If it has developed on the breast, then it should be removed from that breast to a wet nurse or to fresh cow's milk.

The change to fresh milk is alone enough to cure infantile scurvy promptly, but the result is surer and quicker if fresh fruit juices are added to the diet. From 2 to 4 oz. of orange juice a day are given in divided doses, preferably about an hour before feedings. In older babies, raw scraped apple, fresh beef juice, potatoes, and fresh vegetables may be added.

The result that follows the change to raw milk and orange juice, is so striking that one never fails to be impressed with each new case. Within 24 hours there is subjective improvement. I have twice been told by parents, wholly unsolicited, that there was an undoubted change within a few hours. One father, a minister, wrote me: "Whatever the explanation, the child quieted within a few minutes after the first feeding of orange juice, and spent the most restful 24 hours that she had for weeks." In 2 to 4 days the baby is comfortable so that it can be handled, changed, bathed, etc., without crying. The changes in the gums are equally striking. In a case that presented the severest gum changes I have ever seen I put the baby for 24 hours on boiled milk, not expecting much improvement, until I could get an artist to paint a picture. At the end of the 24 hours there was such a change that I very much regretted the delay. In the ordinary case at the end of 1 to 2 weeks there is no trace left of the disease. In cases that have digestive disturbance and need to be fed more cautiously there may, of course, be delay. Fortunately the vast majority seem to have an antiscrobutic diet without any trouble.

The prophylax is evident: the avoidance of these foods, for any length of time, that we know has a tendency to produce scurvy; careful watching and early recognition of the condition in those cases in which such foods are given; the use of fresh raw or pasteurized milk, or milk that has been boiled only a few minutes; the early use of orange juice, say after the 6th month in all artificially fed infants.

COD LIVER OIL IN BRONCHIAL INFLAMMATION.

The great value of cod liver oil in chronic bronchial inflammations is so thoroughly accepted by the profession, that the only question which ever arises in regard to its use, is the form in which it may be best exhibited. In regard to a suitable form for administration, the great difficulty has been to secure palatability without loss of therapeutic power. Cord. Ext. Ol Morrhuae Comp. (Hagee) combines these two requisites as a result of which advantage it has secured the support of a large proportion of the profession.

In the bronchial ailments of young patients especially, it will be found a most satisfactory agent.

CAUSES OF FAILURES

FRANK P. DAVIS, M. D.,
Enid, Okla.

The practice of medicine is, in proportion to the investment and labor required, the poorest business on earth today, and the chances for financial success are growing less each year. Among the hundred and fifty thousand doctors in America there must necessarily be some successful men—as there are in every business, in every profession—but the number is growing less each year.

Some optimists would have us believe that the outlook for the physician of the future is bright and cheerful. They point to the fact that the output of our medical schools will grow less each year as the number of medical school decrease and the entrance requirements become higher. They maintain that the number of colleges teaching medicine is fast diminishing; that the people are demanding greater scientific training, and that the old family doctor must give way to trained specialists. But those who maintain this position let their enraptured gaze on the imaginative glory of the future blind them to the cold fact that a very large per cent of the clientele that is really able to pay for good services have gone over in platoons to the faddists, as we are sometimes pleased to designation the newer schools of healing. There can no longer be a doubt but that a very large per cent of the really desirable practice has gone to the new schools, while the scientific medical man who has spent years in preparation must content himself with that element that is less appreciative of his skill, and less able to pay for his services.

The idea that a reduction in the number of medical colleges, and higher entrance requirements is a blessing is open to question from a purely financial standpoint. I have noticed that there is usually two new-cult schools spring up where there was but one medical school before. There seems to be an inherent trait in man that leads him to believe he is endowed with the inalienable right to treat other men for their bodily ills. These men, if real bright business men, will see the folly of wasting five years time and several thousand dollars to obtain a medical education when they can become a full-fledged doctor in six months time, and with very little expense. Hence, we find that raising the standard of our medical colleges, while it will no doubt produce better qualified medical men, will not materially reduce the number of persons who will practice the healing art in some form. A better way to meet present conditions would seem to be to find the reason that so many persons patronize the new systems, and try and meet the demands of the people.

In the words of C. W. Post, "There's a Reason," and one of the principle reasons that so many have gone to the newer systems of healing is that the practitioners of these new schools consider their patient in the light of a living, human brother, and not simply as a case. One of the most successful physicians I ever met, said the secret of success lay in placing your hands on the patient and in considering him as a brother, and in taking an interest in him.

It is well to remember that not all the questionable fads are confined to the newer cults. We have some of doubtful value in our own profession. It has become a common practice to boost some remedy or line of treatment in the public press until the readers believe that they canont live another day without its use. This way of frightening the public has the same effect that the old time patent medicine advertisements had in creating a

belief in the mind of the reader that he had the very symptoms named.

Then we are working the surgical end of practice just a little bit too strong nowadays. It has been well said that "any one can perform a surgical operation, but it requires a bright mind to become a successful internal medicationist." It is possibly due to the fact that such little real talent is required in surgery that so many young physicians feature this line. The fact is the laity do not want to be operated upon if they can avoid it, and in advocating indiscriminate operating we are injuring our cause. The new cults have caught this point and make it one of their strongest cards, that they cure without the knife; without surgery. To overcome this tendency we should discourage surgical operations except in those rare cases where no other means of relief is probable, and then we should learn more about medicine. The laity have faith in drugs. They believe the biblical statement that "the leaves of the trees are for the healing of the nations." You will find but few therapeutic nihilists among the laity.

If cleanliness is next to godliness many doctors are a long way from heaven. The man who keeps a dirty, disorderly office cannot hope to make a big success in these days. One of the reasons patients go to the practitioners of the new schools is that they invariably find neat and clean offices. A doctor is known by the office he keeps. The man who has a dirty office and keeps hid behind a dense cloud of tobacco smoke will have lots of time to "cuss" the "ignorant quack" that is getting all the practice. You can't plant pigweed and harvest corn, nor insolence and harvest success. Of course you have a perfect right to do as you please in these matters, just as the vaudeville artist said he didn't have to work—he could starve, but you can't make the other fellow patronize you unless you respect his feelings to a certain extent.

Intoxicating liquors, tobacco, drug habits and women are the most dangerous reefs in the voyage to success. The present age demands that a physician shall be free from the use of intoxicating liquors and habit forming drugs, and it is fast coming to the stage where the man who uses tobacco will be in the same class. The American people demand a higher standard of morality of their physicians than from any other class, unless it may be the minister. And this is just, as the physican comes into closer contact with the family and learns more of the family secrets, weaknesses and inclinations than any other person. As men and women grow in years they realize this more, and become more particular in the selection of their medical advisor, hence, men who followed these vices have had to relinquish their former patients in favor of other men whose moral record was unquestioned. Women have always been a source of danger to the physician. Many of them are prone to set traps for the man, and then be the first to condemn him should he succumb to their wiles. The wise physician deals with the forward woman as he would with the President of the Purity Society.

Debt is another breaker that many promising physicians are wrecked upon. The man who fails to live within his income is bound to fail sooner or later. Physicians are classed by business men as notoriously bad pay. This is due in most cases to lax business methods. Drug and instrument manufacturers and supply houses experience much trouble in handling orders from physicans. They will send in orders and never think of sending references —the company has no means of knowing the standing of the physician as the commercial agencies do not report

them. Some doctors, while perfectly honest and able to pay are so sensitive that they resent any question of their intentions, seeming to forget that while they are well known in their own town the man a thousand miles away has no means of knowing them. "Business refernces," says John Uri Lloyd of Lloyd Bros., "are seldom given by physicians ordering goods, even from a house with which they have never before dealt, they seeming to feel that it is somewhat of a discredit to themselves, o give business references in a business way." Another large pharmaceutical manufacturer who deals extensivly with dispensing physicians, William A. Webster, says, "Nine-tenths of the failures of physicians throughout the country are directly attributable to their failure to collect what is justly due them." Every doctor can and should collect his accounts. Then he should pay his bills promptly. It is not so hard to collect if you go after them in real earnest. In my fourteen years practice I have collected 90 per cent of all my accounts and others may do as well. You must meet your obligations promptly if you maintain a good business standing. The big advertisers can always get recommendations from bankers and business men for the very reason that they are judged by their business success. Some physicians are not scrupulously honest perhaps, but the most of them are just careless with their business affairs.

Every college should have a chair of ethics and business and all students should be well grounded in these subjects.

The arrangement of the office and its furnishings has a great deal to do with winning success. Failure is often due to the unfavorable impression made on the patient when first entering the office. An attractive reception room is of the utmost importance. Persons like the office that has the appearance of prosperity and refinement.

Then there is the cold-blooded indifferent man, who cares nothing for the traditions and sorrows of his patients; who rushes out of the house as quickly as possible when death takes charge of his patient; who has no words of comfort for the sorrowing family, and who is hardened and indifferent to the tears of those around him. He too will fail.

Note.—I will be pleased to receive suggestions or questions on this series and consider such subjects as seem to be demanded in future issues.—The Author.

GASTRIC LAVAGE IN BILIARY COLIC.

When actual stagnation of bile arises from calculous obstruction in the cystic duct, pain becomes more constant, and there is usually tenderness in the gall-bladder area. In these paroxysms there is ordinarily pain in the pit of the stomach usually referred to the back, or to the right subscapular region, and much more rarely it is referred to the left side on account of adhesions bebetween the gall-bladder and the pylorus. During these outbreaks of biliary colic the stomach itself may be distended. Its peristalsis is very liable to have been embarrassed by the disturbances going on in the gall-bladder. Here gastric lavage often gives, during biliary colic, more striking relief than does the hypodermatic use of morphine. —W. D. Hamilton in The Lancet-Clinic.

Beck's bismuth paste will sometimes cure a persistent narrow empyema sinus; but it cannot cure a persistent empyema cavity, and in such cases it is very apt to cause serious or fatal bismuth poisoning.

MATERNITAS

By CHARLES E. PADDOCK, M. D.,
Chicago, Ill

(Continued from Page 229 August Recorder

When lime water is to be put with sterilized milk it should be added after the heating process at the time of feeding.

To pasteurize milk it should be heated to from 155 to 167 degrees for thirty minutes. This preserves the milk and delays fermentation without interfering with its digestibility or altering the taste. This method at present is most popular. Its object is to destroy germs at a lower temperature than that used for sterilization. It can practically be accomplished by using a covered tin pail which is large enough to hold all of the nursing bottles for the day which contain the required amount of modified milk. In the bottom of this pail put a thick towel and upon this set the bottles. Cold water is now poured into the pail up to the neck of the bottles, which have previously been corked with cotton. Bring this water quickly to the boiling point and immediately remove the pail from the fire. Set in a cool place, and when cool put the bottles upon ice.

The Arnold sterilizer may be used for pasteurizing the milk by leaving off the hood and placing the lid ajar, and continuing the heating for forty-five minutes.

Milk which is to be given to a baby should not be put into an ice-chest containing other things, such as meat, vegetables, etc. A small nursery refrigerator or traveling refrigerator as it is sometimes called, may be used; it is very convenient especially when traveling with a bottle-fed baby.

It is useless to have pure milk if the bottle or the cup out of which the baby is to be fed is not clean. All articles which are used in the modification and feeding must be rendered aseptic before using. The funnel, graduate, mixing bottle, and nursing bottle must be thoroughly washed and rinsed and the bottles scrubbed out with soda and a brush if there be any scum on the glass; then they should be boiled or heated dry.

A good bottle is the smooth round kind with the scale marked in one-half ounce and ounces. As each bottle is emptied, it is rinsed with cold water, and then allowed to stand filled with water to which a little bicarbonate of soda has been added. Then follows the cleansing as mentioned above.

Common cotton is better than absorbent cotton for stoppers. If the bottles are to be transported rubber corks are preferable.

The long tube with nippel attached must not be used; it has been proved unsatisfactory and dangerous. Only the black rubber nipple which slips over the neck of the bottle should be used. The hole in the nipple should not be large enough to permit the milk to run in a stream, but large enough for it to drop rapidly.

The nipples, after using, should be thoroughly washed and kept in a solution of boric acid. This solution should be changed daily and the receptacle cleaned. Every other day the nipples should be boiled for five minutes.

To prepare the bottle for feeding, it is taken from the ice-chest and warmed by being placed in a receptacle filled with warm water, not over 110 degrees F. To test the temperature of the milk, a little can be poured upon the hand from the bottle. Never taste the milk from the nipple or bottle. It will only take a few minutes to warm it to the proper temperature of about 100 degrees.

There are many appliances for heating the bottles. Little individual bottle

heaters are sold in the shops which answer the purpose very satisfactorily. There is also one heated by electricity which is probably the most convenient of any. Care must be taken not to heat the milk to too great a temperature. The bottle can be provided with a flannel holder or cover which aids in retaining the warmth.

The bottle should always be held by the nurse or mother until it is empty. The bad habit of leaving the baby with the nipple in its mouth, so that it can alternately suck and sleep, is to be avoided.

Feeding During the Second and Third Years.—The feeding of a child after the first year is so important that we will devote a few pages to the subject. Ordinarily the physician does not see the babies after the first few weeks or months, unless he is called on account of illness; this, however, is a mistake.

In the case of a baby fourteen months old, with only four teeth, the writer was called because the baby cried and was very restless. Questioning the mother, he found that the baby sat at table with the parents, and partook moderately of an indiscriminate diet. This is only one example out of many. A young mother should understand that attention to the child's diet is just as necessary during the second and third years as during the first.

It is usual to give five meals a day throughout the second year, as they properly consist mostly of milk. The milk should be modified and prepared the first thing in the morning. Prepare sufficient to last the entire day, put it in separate bottles, and place them in the ice-chest.

While the amount of food and the modification may be subject to change it has been found that the hours for feeding a baby should be uniform and that the longer interval between feedings, sometimes even four hours, even for a very young baby renders digestion more perfect and the baby has less colic.

The preparation of food and manner of eating it are quite as important as the nature of the food. The child must be taught to eat slowly, and no large pieces of food should be taken into the mouth. Up to six or seven years of age all foods should be finely scraped or cut, and all vegetables mashed to a pulp. Oatmeal and cereals generally must be cooked very soft. Give the food at regular hours; do not allow the child to eat between meals. If it refuses to take food at the proper time do not force it to eat. If, however, it refuses altogether a cause must be looked for; either there is something wrong with the food, the child's mouth is sore, or the child is sick.

From the twelfth to the fifteenth month the meals should be as follows:

First Meal.—At 6:30 a. m., a bottle containing seven ounces of milk taken from a bottle in which the milk and cream have been mixed, and three ounces of barley or oatmeal gruel. It is well to add to this a pinch of salt and one-half teaspoonful of granulated sugar.

Second Meal.—At 10 a. m. Same as first meal.

Third Meal.—At 2 p. m. Four to six ounces of broth, or one or two ounces of beef juice, or a soft boiled egg with zwieback. One of these articles may be given each day, alternating to suit the taste. With this is given milk as above.

Fourth Meal.—At 6 p. m. Same as first.

Fifth Meal.—Same as first.

During this period the baby may have strained orange juice, to be given an hour before the second feeding.

Diet from fifteenth to twentieth month: Orange juice upon rising.

First Meal. 7 a. m.—Oatmeal thor-

Second Meal, 12 o'clock.—Broth, rice; beef juice or finely scraped rare steak or mutton chop; well cooked prunes or baked apple; stale bread or zwieback; milk.

Third Meal, 5:30 p. m.—Bread and milk; farina and milk; granum and milk.

Fourth Meal, 10 p. m.—Plain milk.

During this period the child should be weaned from the bottle except at the ten o'clock feeding. Orange juice is given in larger amounts than before.

Diet from the twentieth to the twenty-fourth month:

First Meal, 7 a. m.—Cereals and cream; milk; zwieback or sale bread.

Second Meal, 12 o'clock.—Broth and crackers; scraped raw beef or beef juice, or soft boiled egg; zwieback or stale bread or toast lightly buttered; fruit juice, apple sauce, baked apple or prunes; water to drink.

Third Meal, 5:30 to 6 o'clock.—Bread and milk; farine and milk, or granum and milk; milk to drink.

Diet for third year:

Fruit upon arising, preferably orange juice or scraped apple.

First Meal.—Usually later than formerly, now 7 to 7:30. Cereal with cream and sugar; toast, zwieback or stale bread and butter; soft egg or coddled egg on toast.

Second Meal, 12 m.—Broth, steak, white meat of chicken, chop or roast beef scraped or cut finely soft boiled rice, asparagus, spinach or peas well cooked and potatoes baked or mashed; stale bread and butter; custard or baked apple.

Third Meal.—Warm milk with bread or cornstarch or milk toast.

Give the baby plenty of water between meals but not during a meal. This will establish an excellent habit.

The above diet will admit of only slight modification. Certain articles to be avoided in the diet of a child under four years of age are as follows:

Meats.—Sausage, ham, pork, salt fish, corned and dried beef, wild fowl, liver, hashes, stews and gravies.

Vegetables—Green corn, cucumbers, egg plant, onions, celery, tomatoes, radishes, cauliflower, potatoes other than baked or boiled or mashed.

Bread and Cake—Griddle cakes, new and hot breads and cakes.

Desserts—Candy (except a small piece of molasses candy once or twice a week), canned fruits and preserves, also pastry generally.

Fruits—All raw fruits out of season, bananas.

DISEASES AND INJURIES.

The minor diseases of infancy are too frequently treated by the mother. The simplest illness may taken on complications which will render it serious. A baby with a cough or sore throat may be developing one of the severest contagious diseases, while the mother may be treating it for some local ailment, or it may refuse its food and, while the mother thinks it is suffering from slight indigestion, it may have diphtheria. Some mothers avoid calling the physician for such so-called trivial diseases as measles,, bronchitis, mumps or tonsillitis, in the meantime giving the child some little home treatment advised by a friend or by a family medical book. The chances for error by her in either diagnosis or treatment are so great that it little short of criminal for the mother to undertake alone to treat a sick child. If anything serious should occur surely the mother would find it hard to forgive herself for her neglect. It is much better, then, to call a physician for the simplest indispositions of infancy than for the mother to assume the responsibility of treatment.

It is in the prevention of disease that the mother most shows her skill and tact.

The question is often asked, Since the children sooner or later may have

oughly cooked with cream and salt; zwieback; milk.

all or nearly all the diseases of childhood, why not let them be exposed as the occasion comes and be done with their attack of measles or scarlet fever or chicken pox? A little thought will show clearly that the mother who willfully exposes her child to any contagious disease, does that child a positive wrong. In the first place, though some children have most of the diseases of infancy, many escape this or that disease. Indeed a few children get through without having any of the contagious diseases. So it is not absolutely necessary for children to have these ailments. And, then, in the light of their preventability can anyone imagine she can afford to let her child take the chances of disability from complication and even of death from these diseases! It hardly seems possible.

Preventive "Dont's."—Don't take your baby to visit friends in a family where some member has or recently has had any of the so-called contagious diseases of childhood; and don't allow any person to enter your home who has in their own home any of these contagious diseases. The question is often asked how long after an attack of contagious disease is there danger of giving this disease. To such a query an answer will be found upon reference to the respective diseases in the following pages. Don't let a child with whooping cough come near your baby at any time, as often happens when a baby is out on the street in its carriage. Don't ,if you can possibly avoid it, take your baby into a crowded street car or hall. Don't take the baby to the business part of the city; rather drive towards the parks where there is plenty of fresh air. Don't allow your friends or the nurse girl to kiss the baby, especially upon the mouth. Don't give the baby water drawn from the tap unless it has been boiled for one-half hour. Good spring water is better than boiled or distilled waters. These don'ts if religiously observed, will save many children from suffering.

(To be Continued.)

CHRONIC ANTERIOR URETHRITIS

By NELSON F. McCLINTON
Chicago, Illinois.

(Continued from Page 169 June Recorder)

In discussing chronic posterior urethritis and the treatment of same, certain facts are to be remembered, namely that chronic urethritis in a large percentage of cases includes prostatitis and seminal vesiculitis and in treating urethritis either of the above or both must be included in the course of treatment. If posterior urethritis was confined strictly to the posterior urethra, one is safe in stating that the treatment of chronic posterior urethritis would be much more successful and less arduos, likewise the large army of uncured and sexual neurosthenics would be much depleted.

It is the infection in the prostate or vesicles that adds to the difficulty of treatment. As already stated there are cases of chronic urethritis where the vesicles and prostate are not involved. Again all cases of vesiculitis or prostatitis are not caused by posterior urethritis. However in chronic posterior urethritis these must be eliminated.

To repeat from previous papers the following method has proven satisfac-

tory in locating the seat of infection..

1st. In chronic urethritis the discharge is commnoly present in the form of the morning drop or if no discharge the urine is cloudy or shreds are present. To determine source of shreds or discharge. Wash out anterior urethra with a solution of sterile water or boric solution, washing until the solution is clear. Then have patient urinate an ounce or two, if the urine is cloudy or shreddy, the posterior urethra is involved. Have the patient pass remainder of urine, if this is cloudy or shreddy either the posterior urethra is considerably affected and there has been a drainage of discharge into the bladder or else the bladder, ureters or kidneys are affected.

To determine character of prostatic and vesicular secretion, inject into the bladder either with a soft catheter a hydrostatic pressure 4 ounces of a boric solution, massage prostate and vesicles thoroughly, patient passes solution, a centrifugued specimen is examined, gonococci may or may not be found depending upon length of time infection has been present, the diagnosis will usually depend upon the number of pus corpuscles present. In normal prostate or vesicular secretion there are always a few pus corpuscles present, say 3 or 4 to a field, if more than this, one is safe in saying either a vesiculitis or prostatitis is present.

The question arises how can one distinguish whether the infection is from the prostate or vesicles? In massaging the vesicles, it is impossible to avoid massaging the prostate and in massaging the prostate it is impossible to avoid massaging the ejaculatory ducts, consequently the result of massage is secretion from both vesicles and prostate.

From a practical standpoint one can be guided by an examination of the prostate and vesicles, particularly the vesicles, as the prostate may not show any changes discernible by palpation in the arly stages.

To draw a conclusion from the above it is a safe plan to massage both the prostate and vesicles in carrying out the treatment of chronic posterior urethritis unless examinatinos have shown them to be normal.

It is of course taken for granted that if an anterior urethritis is present is is to receive appropriate treatment. If the posterior urethra alone is infected the prostate and vesicule shown to be healthy, deep instillations of 1% silver nitrate gradually increased to be given twice a week will usually act promptly and efficiently.

Some prefer the irrigations using a catheter or hydrostatic pressure, first washing out the anterior urethra, then allowing the fluid to go into the bladder.

Silver solution commencing with 1:10000 gradually increased are most satisfactory and to be given twice a week (posteriorly), the anterior in the meantime to be treated daily if necessary.

When the prostate or vesicles are a factor in causing the urethritis the above treatment is to be used, in addition these glands are to be massaged. If the instillation method is used massage first and use instillation after. If irrigation method is used inject solution into the bladder and massage afterwards, otherwise secretion produced by discharge will be carried back into the bladder by the pressure which is to be avoided.

It has been stated in previous papers that dilitation is necessary in chronic anterior urethritis and in a considerable number of cases it is necessary in posterior.

The instruments of choice are the dilators namely the one dilating on end. It is necessary to dilate the posterior urethra to a greater degree owing to its

size being greater than the anterior, consequently a steel sound to be efficient would have to be of such a size that it would be either impossible to insert or would be very painful.

Guitera advises in the early stages of treatment to dilate first and massage afterwards claiming the dilitation by stretching and softening the gland makes the massage more efficient.

In the later stages he alvises massage first to be followed by dilitation, in this way squeezing out the contents of the ducts loosened by the massage.

Dilitation can be given twice a week, however it is a safe rule to limit to once a week—anl when dilitation is used irrigate first leaving solution in the bladder so that material produced by massage and dilitation can be washed out by the act of urination. In conclusion if gonococci are found it is safer not to use dilitation until they disappear.

OPHTHALMOLOGY and OTO-LARYNGOLOGY

Conducted by
J. P. THORNE, M. D.,
Janesville, Wis.

SEVENTEENTH INTERNATIONAL CONGRESS OF MEDICINE

The greatest assemblage of medical men which the world has ever seen convened in London, August 6th, at the opening session of the Seventeenth International Congress of Medicine. Some 8000 physicians were present at the opening session at the great Albert Hall. The opening addresses were mad by Prince Arthur of Connaught and Sir Edward Grey, Foreign Secretary.

Sir Thomas Barlow, president of the Congress delivered an able address.

As I attended the Section of Ophthalmology I am more familiar with that part of the Congress and shall give a short account of the work of that section. It was a pleasure to attend that section and meet the great ophthalmologists of the world and hear their views on various ophthalmological matters. Active part was taken by such men as Fuchs, Snellen, Nettleship, Priestley Smith, Axenfeld and Lagrange.

Probably the most important paper of the meeting was that on "Glaucoma Operations" by Lt. Col. R. H. Elliot, Superintendent of the Government Ophthalmic Hospital, Madras. Col. Elliot reported the results of his original work in the development of the operation of sclero-corneal trephining in the treatment of glaucoma. At the Government Hospital at Madras over 820 cases of glaucoma were treated by the sclero-corneal trephine before the paper was prepared.

Th results have been so far superior to other operative procedures that Col. Elliot is very enthusiastic in recommending the operation.

The indications for the operation as given by Col. Elliot are:

CHRONIC GLAUCOMA.

Sclerectomy has admittedly supplanted the older operation for the relief of this form of the disease, and in choosing a method of performing sclerectomy, we shall go far before we find a simpler and easier technique than that of trephining, or one which admits of more subtle graduation of the effect produced. Sufficient time has elapsed to enable us to say with certainty that the filtration obtained

by the use of the trephine is permanent. We have under observation a number of cases ranging in duration from a few weeks up to three and a half years, and in the great majority of these the filtration established at the time of the operation shows no signs of interference or diminution.

CONGESTIVE GLAUCOMA.

Our routine treatment for such cases in Madras in trephining and in the minds of those who have tried it in our clinic there exists no doubt that it is at once a safe and and easy method of dealing with a class of cases which admittedly tries the nerve of any surgeon. A subconjuctival injection of adrenalin and cocaine renders the operation practically painless: and we therefore rarely resort to the use of a general anaesthetic in Madras. There is, however, absolutely no contraindication against narcosis; the operation can be done as easily with it as without it. Surgeons at first showed considerable reluctance to employ the trephining in acute or subacute cases, but experience is fast breaking down the barrier, and Sydney Stephenson, Bradbourne, Kayser and Stock have recently published successful cases, whilst hitherto unpublished reports continue to reach the writer from Europe, Australia, and America. In favor of adopting the trephine in congestive cases, it is to be borne in mind that the opening this instrument makes in the tunic of the eye is minimal, and the relief of pressure is more gradual than that obtained by any other method; indeed in this respect the effect of trephining is almost comparable with that obtained by scleral puncture.

GLAUCOMA FOLLOWING CATARACT EXTRACTION.

We have trephined nine eyes for this condition and have been able to follow three of these for nearly a year after operation, the result being excellent in each case. Only one of the remaining six is known to have ended in failure, but the rest were not followed long enough for us to fairly build conclusions on them. The prognosis of these cases have always in the past been bad, if not desperate, under any known form of treatment. A review of our results has led us to believe that trephining provides a means of arresting the glaucomatous process in these cases.

GLAUCOMA SECONDARY TO LEUCOMA ADHERENS.

We have on several occasions operated in Madras for the relief of such a condition, and so far as we have been able to follow the patients, the results have been satisfactory.

GLAUCOMA FOLLOWING INJURY.

The prognosis is here always very serious but trephining has proved of distinct service under conditions for which little could be hoped from any other form of treatment. There is one important proviso which applies with equal force to the cases in which glaucoma follows the extraction of a cataract, viz.: that it is inadvisable to trephine communication between the anterior and posterior chambers.

Staphyloma.

We have trephined twenty-five eyes for staphyloma of the cornea or of the ciliary region, in order to arrest the bulging and to avoid the necessity of enucleation. The conditions present are obviously unfavorable to the maintenance of free filtration. A number of the cases have been followed for periods varying from five months to nearly two years, and the results have encouraged us to unhesitatingly continue to trephine staphylomatous eyes, even though the tension may not be high, as shown by tonometric readings.

CONICAL CORNEA.

We have trephined several eyes for this condition as a prelimnary step to

the undertaking of other procedures; it must be admitted that the proposal to follow this lead is tentative, at least for the present.

BLIND PAINFUL EYEBALLS.

We have trephined a number of such eyes to relieve pain. Long standing cases of glaucoma are admittedly unfavorable for any operative procedure and intra-ocular haemorrhage is very likely to follow the relief of tension. Should trephining fail, or be contraindicated, we perform an opticociliary neurectomy.

PROPHYLAXIS.

What ever may be the verdict of other countries, one fact stands out prominently in Indian experience, viz., that glaucoma is a bilateral disease. Once it has appeared in one eye the involvement of the opposite side is merely a question of time. The conditions under which a surgeon works in the East are very different from those prevailing in the West. In this land of large distances, many of the patients will be either unable or unwilling to return a second time for advice, and one must bear this in mind, and if possible deal with such people once for all. It is therefore, our rule in Madras to trephine both eyes, when one is affected with primary glaucoma. We have done so on several occasions in the case of highly educated patients whose stations were far distant from Madras. We have watched such cases very closely, and have satisfied ourselves that a normal eye is little, if any, the worse for trephining. The operation is very easy under these circumstances, complications are absent, convalescence is uninterrupted, and safety is, we believe, assured. It is a matter for Western surgeons to decide whether the practice of prophylactic trephining should not be entertained by them, in any case, it merits serious consideration.

Col. Elliot gave the following report of his results:

THE RESULTS OF TREPHINING AS JUDGED BY THE STATISTICS OF RETURNED CASES.

In the last three years over 820 eyes have been trephined in Madras, and careful notes of each are on record, together with a statistical table consisting of nearly eighty headings, whereby a rapid review of any case can be obtained.

All readings are tonometric; the Maklakoff instrument was used at first, and then replaced by the Schiotz tonometer. No hand readings are recorded.

Excluding our more recent cases on the ground that they have not yet had time to present themselves again, we find that out of 650 eyes under review, nearly 82 per cent had returned at periods varying from a few months up to nearly three years after the operation. For convenience sake we divide the 'returned eyes' into five classes, on the basis of the state of their vision at the time of operation. We shall take each in turn.

CASES IN WHICH THE VISION WAS NIL AT OPERATION.

Sixteen of these returned at periods varying from nearly a month up to and over two years. One was a blind staphylomatous eye and a second trephining failed, like the first, to relieve hypertension. Three cases returned (11 months, 17 months and 18½ months after operation) with vision respectively of perception of light, recognition of hand movements, and 5-60. A fourth, seen over two years after operation, still has marked lowering of tension. Of the improved cases, one was in an acute, one in a sub-acute, and one in a chronic condition at the time of operation.

(To be Continued.)

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Wisdom is knowing what to do next.
Skill is knowing how to do.
Virtue is doing it.

MISCELLANEOUS

ERLICH, WASSERMAN, NUGOCHI.

By E. F. Fish, M. D., Milwaukee, Wisconsin.

From the time of Moses and probably ages before syphilis has been the greatest bane known to mankind. As far back as our records and traditions extend, it has proven to be the greatest affliction known to humanity, not barring carcinoma, leprosy nor tuberculosis. In fact I am inclined to consider it as the father of all the great family of blood dyscrasiae. It is to men like Erlich, Wasserman and Nugochi that credit must be given for taking the initial steps to eliminate and unveil its etiology. Within the last decade these discoveries have been made and let us hope the work will not end here. It would seem to the writer that the entire human race is tainted with the disease. As far back as the history of man dates, thousands upon thousands of people have given up treatment before even the hope of a cure could be entertained and as we all know, before even an attempt was made to prove one. The writer has made it a rule to avoid genito-urinary work and still in his practice has handled at least 75 syphilitics who have given up treatment within periods of from two to six months on the ground that they believed that they were well. Imagine the thousands who have done the same thing with our specialists. These men are married and all have families ranging from one to a half dozen children. Do not be deluded with the belief that syphilitics are sterile nor that it is the rule to abort. It might be appalling should a Wasserman reaction be positive on about one-third of our population and then often five or six negative tests prove positive on the other two-thirds. This is not uncommon. A decidedly positive reaction spells syphilis. So does a positive Nugochi skin test, but a negative reaction has no meaning and does not assure one that the disease is not present. In reality it has no significance. Erlich has done good work in his search for a cure and has pointed out the road. However his cure is not complete. Wasserman has proven that the disease can be revealed, but the reaction is uncertain. The same thing can be said of Nugochi's skin test. The writer sent the following questions to the Journal of the A. M. A. June 28th, 1913.

"To the Editor:

"1st. Do you consider a faintly positive Wasserman reaction and the ability to stand four injections of neo Salvarsan of 0.9 gram each without great disturbance and about three weeks apart, to be conclusive evidence of syphilis in one who has never had any of the cardinal symptoms of syphilis, such as angina, an eruption, enlarged lymphatics, loss of hair, chancre, etc.?

"2nd. Does the mere fact that one can assimilate the Salvarsan even if a Wasserman is negative indicate syphilis beyond a doubt?

"3. What is a faintly positive Wasserman reaction and what does it signify?

"4. Could the disease be hereditary after fifty years with no previous symptoms and then give a Wasserman reaction? If so, would the use of Salvarsan be proper?

Answers:

1. Yes.

2. No.

3. A positive result in the Wasserman reaction is indicated by the fact that no hemolysis of the blood corpuscles used occurs. If a partial hemolysis only occurs, the reaction might be considered faintly positive. If complete hemolysis occurs the reaction

is negative. The failure of complete hemolysis would indicate that some factor was prohibiting its occurence. If the condition of the test are carefully carried out, a partial hemolysis indicates the probability of a specific inhibition of the hemolytic action. Such a case would be suspicious of syphilis but the evidence would not be conclusive.

4. While it is very improbable that hereditary syphilis would remain to the age of 50, without producing symptoms, it can not be regarded as impossible unless contra-indicated by the condition of the patient. Salvarsan would be proper for any case of syphilis."

From the above replies it would seem that the ability to assimilate Salvarsan counts for nothing and a faintly positive Wasserman reaction is not conclusive evidence of syphilis. I think therefore that question 1 should be answered no and all the more so since the patient has never had any of the cardinal symptoms of the disease. The writer, however, is no syphilographer and respects the decision of the A. M. A. The question then confronts us, Are we a race of syphilitic monstrosities?" The disease reaches out for the high, the low, the rich, the poor, the aristocrat, the common people. It permeates all clases of society. It is no respector of persons. When we reflect that it has existed from time immemorial, how can we escape the conclusion that we are a race of luetics. What? Is the disease hereditary? It hardly seems necessary to reply to this question. Profitas law claims that children born of syphilitic parents are immune and that this is because of the placenta which opposes the entrance of the spirochoete or that the child becomes saturated with antigens which would protect it. It is claimed by Matzenhauer that this law has been repealed. Some authorities claim that there is no hereditary syphilis unless the mother has the disease. This view is also pronounced without merit. Yes, the disease is hereditary.

It cannot be long before progressive medicine will reveal a cure and an unfailing test. Then I believe will follow a revelation such as will astound us. How can this be otherwise? I claim not one is exempt and that with the elinmination of the disease sterilization will result, fecundity will end as spermatogenesis ceases, man will live forever and the millenium will have arrived.

AMERICAN PROCTOLOIC SOCIETY.

(Continued from Page 244 August Recorder

Further Observations on Pruritus Ani; Its Probable Etiologic Factor; Results of Treatment. By Dwight W. Murray, M. D., of Syracuse, N. Y.

Dr. Murray's paper which is a continuation of his investigations on the etiology and treatment of pruritus ani, gave some new points which he had observed during the past year, and his additional experience in the treatment of patients . He found no reason for materially modifying his former reports, but has gathered data which helped to prove the correctness of his previous work. He found streptococcic infection in three cases of pruritus ani and vulvae, and in four cases of pruritus that had involved the scrotum as well as the anus. These complicated cases improved, with the exception of two vulva cases, by the use of the vaccine treatment.

During the past year Dr. Murray has increased his former series of thirty-two cases, by twenty-five additional cases, in five of which streptococcic infection was not found. These cases showed other infections, which still further proves the cocigenous nature

of pruritus ani; and also demonstrates that other batceria than streptococci may bear a casual relationship, as was hinted in his first paper on this subject.

His cases, so far as he has been able to determine, have not been affected by diet. Since Dr. Murray discovered the infection in pruritus ani he has never interfered with the food of any patient; neither has he restricted them in the smoking or drinking habits. The improvement under the vaccine treatment without regard to eating, drinking, or smoking, gives him additional proof for the bacterial theory.

During the past year he has carefully investigated as to whether or not the itching extends into the anal canal beyond Hiltons white line, with the result that only in one instance did it extend beyond that point, and then only for a short distance.

His investigations of the past year have given him additional proof that pruritus ani is not caused by any local lesion within the anal canal, and that when such lesions exist with pruritus ani they are coincidental.

In the cases that have been operated for local lesions the pruritus ani has not been permanently improved as a result of the operative procedure.

He said that rectal and general surgeons have observed many cases of fistulae with discharges upon the anal skin, without pruritus ani being present. The same is true of hemorrhoids, constipation and other rectal lesions, pruuitus ani occurring in only a small proportion of such cases. He, therefore, still holds that when pruritus ani exists in connection with other lesions that it is a co-incidence. In his 1912 report he gave a summary of nine hundred consecutive rectal cases wherein this fact was established fairly well.

He referred to the opsonic index, or more properly the coefficient of extinction of opsonins, and claimed that much valuable information was to be gained by this test.

His work shows that if a complicating infection exists, and other bacteria than streptococci are found to be the sole invading organisms, we must use the corresponding autogenous vaccine. The opsonic index, following a bacterial diagnosis, is the proper method for determining this.

The results of treatment, and the history of patients, prove to him, that if pruritus ani exists with local lesions which demand operation, that the prognosis depends upon whether a skin infection is present or not. If the skin infection is present the local lesions may be cured by an operation, but the patient should not be led to believe that the pruritus ani will also be cured by it. Per contra, if a skin infection does not exist with a local lesion and itching, the prognosis may be that the itching will very likely cease with the cure of the local lesion.

After personal investigation in treating; watching results; noting how cause, effect, and results, dovetail together; comparing these investigations with statements and theories made in text books, and in articles appearing from time to time in medical journals, and containing no definite pathology or scientific reasons for cause and effect; Murray cannot understand how the profesion will uphold such theories, rather than the bacterial theory which has been so well proven in his own cases and confirmed by other observers.

The uniformity of the bacteriologic findings is a strong support for the bacterial theory of the etiology of pruritus ani. The chronicity of all the cases; the uniform symptoms; the similar conditions of the skin; the locality; the regularity as to the time of the attacks; the uniformity of itching outside of Hilton's white line; the uniform blood findings as to the coefficient of

extinction of opsonins; and the fact that all local applications which have given beneficial results in the past have contained a strong germicide; all point directly to a common cause. Further confirmation is found in the uniformly good results of treatment with autogenous vaccine of the variety of bacteria against which the patient has a low phagocytic power; and in the lack of good results by the various haphazard methods of treatment in general vogue.

His reference to fissures in previous papers having been misunderstood by some, he desired to state that he had referred only to fissure-like cracks of the skin, and not to anal fissures or ulcers.

Endo's medium is used to plate the cultures. The vaccine employed is of the strength of one billion to the CC., beginnig with two minims, or one hundred and thirty millions.

Dr. Murray refers to a paper written by Dr. Jerome Wagner, of New York City, published in the May number of the Medical Review of Reviews, in which Dr. Wagner reports some erroneous ideas claimed to have been gleaned from reading Murray's first two reports. Dr. Wagner not having been able to confirm these reports, Dr. Murray pointed out the errors of technique in Dr. Wagner's work, as well as his errors in the interpretation of the reports.

Dr. Murray gave statistics, in favor of his theory, drawn from three years original work on the subject; he also gave a summary of the results of treatment,. showing the favorable clinical results with autogenous vaccines in a large majority of the cases treated.

He summed up his conclusions, as follows:

1st. Results of the past year's work continue to uphold the correctness of the bacterial theory of pruritus ani.

2nd. It is advisable to make a bacteriologic examination of all cases of pruritus vulvae; also of cases of scrotal pruritus.

3rd. The coefficient of extinction of opsonins is a valuable aid in diagnosis in complicated and obstinate cases.

4th. Pruritus ani in this series of cases rarely extends above the white line of Hilton, and it is still subjudice.

5th. The presence of a skin infection with a local lesion begets an unfavorable prognosis for the cure of pruritus ani by an operative procedure.

6th. The absence of a demonstrable skin infection and the presence of a local lesion, with pruritus ani, will justify us in making a favorable prognosis for the cure of the pruritus ani by an operative procedure.

7th. Pruritus ani, with such infection as we have demonstrated, and a lesion existing in the anus or rectum, according to his statistics, is a coincidence; and the latter lesion is not the cause of the pruritus ani.

8th. The sphincter muscle does not allow a leakage of rectal mucous upon the anal skin of one who has pruritus ani, except there is a patulous anus, any more than it does in a normal individual who has no pruritus ani. The moisture of the parts is due to a low grade inflammation of the infected anal skin.

Treatment of Fistula in Ano. By J. A. McMillan, M. D., of Detroit, Mich.

1st. An incision that will open up every ramification of the fistulous tract.

2nd. The excision of the fibrous tissue which forms its walls.

3rd. Free drainage, and a regulation of the granulation by means of pressure by gauze packing.

♣ ♣ ♣

Severe neuralgic pain over the bridge of the nose indicates prssure on the anterior ethmoidal nerve, probably due to high deviation of the nasal septum.

NEOSALVARSAN.

By James McIntosh, M. D., Paul Fildes, M. B., H. B. Parker, M. R. C. S.

Reprinted from tre Lancet (London), July 13, 1912.

The writers draw attention to certain advantages possessed by neosalvarsan: Its increased solubility, neosalvarsan dissolving readily in distilled water to produce a neutral solution; its greater ease of preparation, and the practical absence of any toxic symptoms folowing its injection.

The direct destructive power of neosalvarsan and salvarsan was compared in a series of observations made of trypanosoma brucei. A cubic centimeter of increasing dilutions of neosalvarsan, on the one hand, and of salvarsan on the other, was placed in a series of test-tubes, and to each was added one drop of rat-blood containing a large number of trypanosoms. The motility of these organisms was then examined from time to time. As determined by this test the authors found that the parasiticidal power of neosalvarsan was five to ten times more active than that of salvarsan.

The authors mention that the fever sometimes occurring several hours after an injection of salvarsan, especially in tertiary cases, is also observable after the use of neosalvarsan. They advance the interesting view that such fever is not an expression of the toxicity of the drug, but "perhaps rather a syphilitic anaphylactic phenomenon comparable to the fever following old tuberculin."

Like Schreiber, in whose hands rested the clinical application of neosalvarsan on 230 patients, they have discontinued the intramuscular method of injecting neosalvarsan. Severe pain, though not so great as in the case of salvarsan, and persistent induration follow such injections and thus greatly discount the supposed advantage of a more lasting therapeutic effect.

Neosalvarsan therefore, by reason of its diminished toxicity to man, allows of a more intensive treatment of early syphilis. The authors recommend that in primary syphilis two initial doses (separated by a one-day interval) be given and followed by a third dose at the end of four weeks. In secondary syphilis three injections are given at one-day intervals and then a fourth eight weeks later. In tertiary cases, the treatment should be repeated every two or three months after the initial course until a negative Wasserman has been obtainel.

Schreiber advocates large doses, giving as an average course, quantities equivalent to 0.6, 0.8, 0.9 and 1.0 grams of salvarsan in seven days; that is equivalent to 3.3 grams of salvarsan, about 5.0 grams of neosalvarsan.

E. T. F. Richards.

MUSCULAR SPASM.

By Dr. J. L. Wolfe, Cedar Falls, Ia.

A short time ago I was called upon to attend the case of a boy about six years old who had been playing what the boys call "leap frog," a practice of stooping about half bent while others leap over by a touch of the hands upon the back or hips of the one bent over.

This little boy came to his house after the play with a limp, but did not complain much for two or three hours; he then said his hip hurt him. The pain grew rapidly worse and I was sent for to see what the trouble was. Upon examination the boy shrieked with pain as he could not bear his leg to be touched. The slightest movement started agonizing cries, and drops of perspiration would stand on his face. Had I not seen similar cases before I might have been puzzled in determining the nature of the case. The parents thought a dislocation of

the hip had been produced, and others that were there thought the bone of the leg was fractured.

This boy, while in a stooping position, received a blow on the back and hips, might have had a blow sufficient to have dislocated the hip joint or caused a fracture of the femur. But at the same time we must remember that he went home with a mere limp and was not specially disabled for some time after.

This is an important point to consider in this case. Had it been a case of dislocation, the leg would have suffered and immediate preternatural immobility; and had a bone been broken there would have been loss of function.

Upon my first examination I was convinced that there was preternatural mobility and hence it was barely possible that it was a fracture. On manipulating the leg there seemed to be an undue muscular hardness about the hip and along the sheath of the femur. The leg of course could be moved but not without much pain. I flexed the limb over a pillow; and after giving a few doses of suitable medicine left him for the night. The next morning I found him quite easy and comparatively well. He could be moved without pain and soon was well.

I have in mind also the case of an old lady who had slipped on the icy sidewalk and could not move herself from where she had fallen. I was fearful at first she had fractured the neck of the femur, but upon close examination I found to be a sprain and it had induced muscular spasm. I shall never forget this case for I concluded at the time to try nerve and muscular stretching in her case.

By extention and counter-extention of the nerves and muscles of the limb perfect ease was obtained and all at once the old lady exclaimed, "Doctor you have a wonderful amount of magnetism about you, I can feel it all through my body." The fact was that the good effects were due to the tension I had given to the nerves and muscles of the limb.

I remember another case; a lady who had gone to the potato patch to dig some potatoes for dinner. She by a sudden and peculiar move wrenched her hip which caused severe pain. Under the effects of a hypodermic injection of morphia the pain soon subsided and she had no further trouble with it.

We occasionally meet with cases of muscular spasm that might be regarded as chronic cases of injury involving joints in which pain is not so acute, but rendering a joint stiff and useless. As typical of this I could mention many cases in proof of what I have stated.

THE RELATIVE VALUE OF TURTLE TUBERCULIN IN THE TREATMENT OF TUBERCULOSIS.

"The treatment of individual diseases with medicines or by methods having a selective curative action has until recent years has been limited. With the establishment of the germ theory, and vaccine therapy of certain diseases and the development of information concerning immunity, new methods of specific treatment have been made possible, and are now practiced under the terms of serum and vaccine therapy." This is part of an introductory paragraph of a valuable contribution of the above subject appearing in the New York Medical Journal for September 13th, 1913, by Doctors J. W. Beattie of New Hampshire and E. E. Meyers of No. 418 Central Park West, New York City.

The authors mention the fact that to Robert Koch belongs the honor of giv-

ing to the world 23 years ago tuberculin, which was the first great advance in the diagnosis of tuberculosis. Prior to this, the disease was generally recognized as a fatal malady; it was not diagnosed until the disease was advanced and the symptoms marked and then death was required to substantiate the diagnosis. His discovery of the difference in the action of the remedy on the healthy and the tuberculous has proven to be one of the most important discoveries in the modern study of tuberculosis. This discovery gave the profession the tuberculin test which has not only made possible an early diagnosis of the presence of tuberculosis but has also given us a more thorough understanding of the nature of the disease and the essentials of its prevention, as well as led to its specific treatment.

Drs. Beattie and Myers quote von Ruck's reference to the claims of Friedman for the superior value of a living tubercle bacilli in the treatment of tuberculosis, and deprecates the Berlin doctor's spectacular advertising propaganda in the daily papers. Von Ruck said, "inasmuch as living tubercle bacilli of the humas type have been found in vaccinated cattle both in their flesh and in their milk, as long as three years after their intravenous injection, the objection to the use of the living tubercle bacilli as an antigen, or vaccine for prophylactic purposes in the human subject is well founded. A more formidable objection, is however, the danger of virulence."

They aver Prof. Piorowski, working along the lines of Prof. Koch's discovery, isolated a living antogen in the form of tubercle bacilli recovered from a turtle, as far back as 1903 without in any manner questioning its non-virulence. Since that time he has continued his research along this line, and has at last succeeded in perfecting a tuberculin produced from the tubercle bacilli of a deep sea turtle which is non-virulent, and with which, he has successfully experimented with thousands of cases during the past few years at his laboratory in Berlin.

Further quoting Piorkowski, the authors refer to his lecture delivered at the Royal Hospital for the Diseases of the Chest, London, Eng., on April 1st, 1913 (1 British Journal of Tuberculin, July issue, 1913) on discussing his Turtle Tuberculin, Piorkowski said, "We must differentiate between mammals which produce their offspring alive, and the class to which human beings and oxen belong and bids, i. e., that is, animals which lay eggs, thirdly, reptiles, which possess horny or long integument asd also lay eggs. Lizards, crocodiles and turtles belong to that last class. Finally, we have to think of fishes which breathe as long as they are young through gills or by their lungs, and also lay eggs. We thus see very clearly that resemblances are to be found only among lung-breathing animals, and it is for this reason, probably, that the results described are obtained on the injection of tubercle bacilli of similar kind. It became very evident that turtles were especially adapted for our purpose."

In further describing his work along this line Pirowski says, "It is very noteworthy that the turtle tubercle bacillus in its further behavior, both culturally and morphologically, displayed an extraordinary resembance to the human tubercle bacillus. Its growth at 37 degrees F. is remarkably characteristic. The main point about this strain is that it can be used without risk of any manifestations—a circumstance which may be ascribed to the fact that for the last ten years it has been reinoculated afresh daily, and thus has acquired generally an extraordinary innocuousness, becoming both a virulent and a toxic.

The authors in explaining the bio-

logical action of Piorowski's Turtle tuberculin quote the latter as follows: "Let us for example, consider atoxic action a little more closely. When a poison enters the body, e. g., tubercle toxin, the first point concerns the existence of receptors which can take up the tubercular poison. If these do not exist, no infection by tubercle bacilli can occur, for the organism possesses congenital immunity towards the action of these bacilli.

The harmless turtle tuberculous toxin combines with the receptors, and the combination is thrown off into the blood as antoxin. New receptors are formed in large quantity, but they are capable of seizing not only the turtle tubercle bacilli, with which they have been hitherto leaning, but also human bacilli, and thus render them harmless. If there is a profuse formation of new receptors, and if the human tubercle bacilli have increased unduly, complete recovery may be affected. The rationale of the cure is along these lines. There is also the additional advantage that turtle tubercle bacilli are innoculous and harmless, and therefore this method is especially well adapted for protecting inoculation.

Recent investigations with turtle tuberculin, in Prof. Piorowski's laboratories, made by the authors show that tubercle bacilli, when grown in the blood serum of (cold blooded animals) turtles change quite distinctively its bacteriological characteristics, particularly in lessening its virulence and at the same time increasing its power to form antibodies in the blood of tuberculous patients. This turtle tuberculin acts as a direct stimulant to the antibodies of tuberculosis exerting far greater beneficial effects than human tuberculin, even when the latter is given in the most carefully graded and guarded doses. Furthermore, turtle tuberculin produces only a very slight reaction, besides it possesses far greater immunizing properties than does human tuberculin, even when the latter is given in the most carefully graded and guarded doses. Furthermore, turtle tuberculin produces only a very slight reaction, besides it possesses far greater immunizing properties than does human tuberculin with none of the latter's untoward effects.

According to the authors' experience, the smallest imunizing dose was one minim of turtle tuberculin administered in 16 minims of normal salt solution. The interval between doses depends upon the recurrence or exacerbation of original symptoms, which is usually about seven days. Very slight reactions such as a rise of temperature to 100 F., and more or less languor for about 24 hours following the injection are the only reactions which occur even with a maximum dose.

The best site for injection of turtle tuberculin is in the fold of the gluteal region between the Glutens Maximus and Minimus muscles which location facilitates absorption.

In closing the authors make the following comparisons.

Human Tuberculin—Redness and infiltration begin in area of injection in from four to eight hours. No thickening of the skin. Area of infiltration usually very tender. Abscess sometimes follows injection. Adjacent lymph glands swollen.

Turtle Tuberculin—Redness and infiltraton begin in area of injection in twelve hours. Slight elevation and thickening of skin. Area of infiltration is not tender. No abscess follows at point where needle pierces skin. Lymph glands not swollen.

Human Tuberculin—Doses smaller, effect slower, reaction marked, length of treatment prolonged.

Turtle Tuberculin—Dosage greater, effect more rapid, reaction slight, length of treatment short.

Hygienic Treatment—Not always

feasble. Treatment prolonged. Necessitating interference with daily avocation. Results not always satisfactory. Recurrence frequent.

Turtle Tuberculin Treatment—Always feasible. Treatment shortened. Does not interfere with daily avocation. Results very encouraging. Recurrence improbable.

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THE GALVANIC CURRENT.

By J. A. Burnett M. D., Hartshorne, Oklahoma.

The galvanic current as discovered by Galvani and has been used more or less since 1780. According to Bennett the galvanic current is of greater service in stimulating the absorbents than the faradic current. Galvanic current is a direct current. If it is not obtained from an electric light current it must be a direct one or if alternating a rectifyer must be used.

It is best for physicians who live in cities to depend upon the electric light current for galvanic electricity in place of batteries. A galvanic apparatus should last a life time if of a good make and taken care of well. The galvanic apparatus is not easy to get out of order.

Galvanic treatment should never be given through the clothes.

The poles of a galvanic batery are: Positive pole, 1 oxygen, 2 acid, 3 will stop bleeding, 4 sedative, 5 hardens tissue, 6 is an acid caustic and the resultant cicotrix is hard and unyielding and 7 is a vaso constrictor. The negative pole is 1 hydrogen, 2 alkaline, 3 increases bleeding, 4 produces hypersensativeness, 5 liquifies and disintegrates, 6 is alkaline caustic and the resultant cicatrix is soft and palable, and 7 is a vaso dilator.

St. Clair says: "If I could have but one battery I should prefer the galvanic by all means, even the static machine will never take its place. With a galvanic battery one can do nearly everything he wants to but as a pain reducer nothing will equal the static machine."

The galvanic current except the interrupted is chemical in action while the faradic current is mechanical in action.

Hemorrhoids when not inflamed may be destroyed by seizing them with smaller forceps attached to the positive pole and plunging the negative needles into the tumors. Within five minutes they will turn white and be destroyed. Antiseptics should be employed after this treatment.

Dr. J. H. Davis (Am. Jour. Clinical Med., Oct., 1906) treats pterygium by electricity. He says its growth can be stopped by the use of the galvanic battery. Attach the rat-tooth forceps to the negative end of the battery, catch up the growth including the blood vessels and turn on the current, using from 3 to 5 mm. till the vessels turn white. Repeat the process in three or four places. If any of the growth is left in a week or ten days give another treatment. Dr. Davis also treats orchitis with the galvanic battery. Use Neiswangers varicocele electrode covered with cotton wet with a solution of phytolacca. Use positive to the testicle 10 to 15 ma. for twenty to thirty minutes. Follow this with a high frequency vacuum tube (positive) for half an hour or till soreness is gone. Usually one treatment will suffice to make a cure.

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An abdominal drainage tube that is in contact with the epigastric vessels occasionally erodes them and causes alarming hemorrhage. When such a vessel is at the edge of a wound through which a tube is to be passed, it is a wise precaution to ligate it above and below.

The Wisconsin
Medical Recorder

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PUBLISHED BY
WISCONSIN MEDICAL RECORDER
JANESVILLE, WIS.

SUBSCRIPTION PRICE

$1.00 per Year in Advance; Single Copies 10c in the United States and Mexico.
$1.25 per Year in Canada.
$1.50 per Year in Foreign Countries in the Postal Union.

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Reports and items of interest are gladly received.

VOL. 16 SEPTEMBER, 1913 No. 9

On page 247 of our August issue of "The Recorder" appeared an article entitled "Gelsemium in Pellagra." Our readers have probably all noted the number of typographical errors that apeared in that article. The editors can simply say that we regret very much indeed that the reading of the proof sheets of this article was overlooked—a thing that can easily happen but should not happen, so we take the first opportunity to offer an apology to our readers.

DRUGS.

The subject "Drugs" covers a large field and one that is of the utmost importance to the physician and one that deserves a good deal of serious consideration. The question of dispensing drugs is one that each and every physician must decided for himself—there are splendid arguments in favor of both sides of the question. However, we will not try to go into this phase of the subject very deeply. The main point to the man who dispenses drugs is the fact that he wants to be sure that the drugs he is giving out to his patients are the purest that can be obtained, no matter whether the price is higher or not. We all know that some of the drug houses generally have something that is just as good, if they do not happen to have just what one wants. Many of them have the drugs we want and offer them at a much lower price, but one should always think twice before purchasing. We should forget our pocket book and think of our patient. One of the chief disadvantages of physicians dispensing drugs is the fact that they are apt to buy in such large quantities that they have to keep them for such a long time before getting rid of them all, that many are liable to become inert, particularly if they are not the purest, and even some of the best at times deteriorate.

The chief argument, for dispensing our own drugs is that the fact that some druggists refill drescriptions indefinitely without the physician's orders, and again some of them are guilty of substitution. However most reliable druggists will follow out a physician's orders, for it is to their interest to do so. I believe a great deal of the success of the different "Pathies" today is due to the Medical Profession using inferior and inert drugs, for with them we cannot obtain the results we are looking for—and in consequence patients become dissatisfied and and try some other means of obtaining a cure for their different ailments. In regard to drugs let your motto be to "Use only the purest drugs you can obtain, even if you have to pay double the price for them."

ABSTRACTS

ANTI-MENINGITIS SERUM.

Accidents occurring after the injection of anti-meningitic serum are considered by S. Flexner, New York (Journal A. M. A., Aug. 16). There is no question but that the mortality of the disease has been greatly diminished by the use of the serum and that it is the only effective treatment so far known for the disease. The inconvenient accidents that have been reported should, however, not be ignored. Some physicians of extensive experience have reported none at all, while, on the other hand, in one or two instances their number has been proportionately excessive and hence the necessity of their critical study. They have been attributed first to anaphylaxis; second, to rapid lysis of the meningococci; third, to excessive intracranial pressure, and fourth to poisoning by the phenol preservative sometimes contained in the serum. The existence of the last cause is refuted by the occasional occurrence of these accidents, after the use of the Dopter serum which contains no preservative and the anaphylaxis theory is excluded by the observations of Dr. Parmalee. The theory of lysis of the meningococci is based on the observations on horses and guinea pigs and is inadequate to account for most instances observed in man since it applies not to the cases in which severe symptoms arose, but to those in which the number of meningococci within the inflammatory exudate has been very small and insufficient to give rise to the insoluble toxins required, or in which the meningitis is due not to the meningococcus but to the pneumococcus. The remaining explanation, that of increased cerebral pressure, is in Flexner's opinion, most satisfactory and the unhappy experiences observed are best explained by it. Koplik early suspected this danger and advised the substitution of the gravity method for that with the syringe. Recently a further safeguard has been introduced by Sophian who employs the registration of the blood pressure to supply an ocular guide to the injection. It is not always possible, moreover, to attribute serious symptom after the injections, to the serum. Sudden death in epidemic meningitis is frequent and has occurred while the doctor was making his preparations for the injection and before it had been done. The attempt to discredit the anti-meningitic serum on the basis of an unfortunate experience seems, therefore, hardly justifiable.

REST IN TUBERCULOSIS.

J. W. Flynn, Prescott, Ariz. (Journal A. M. A., Aug. 16), says that, in spite of the work by Hilton, Mitchell, etc., physicians have been rather slow to appreciate what rest can do to cure and prevent disease. With the exception of a little work of Norman Bridge and a few scattered papers by others, practically nothing has been written on the important subject of rest in tuberculosis. Though Bridge was unfortunately content with mechanical measures, his views were a decidedly marked step to advance, and the revival of the operation of artificial pneumothorax, though its special value is in only a limited field, may help to teach the profession the importance of rest to the lung. Flinn would prescribe it for every tuberculous case; absolute rest in bed for at least a month and in most cases for two months, whether there is fever or not. It should be prescribed in definite quantities guided by the condition of the patient throughout the disease, and when a certain grade of rest does not bring the maximum temperature

below 100 F. in two weeks, the next higher grade should be tried. To the objection that each case should be treated individually, he answers that the inexperienced should follow general rules and make exceptions only when benefit is not derived. Rest in bed is also a valuable remedy after the lung lesions have become quiescent and the patient is taking active exercise. Two hours absolute rest in bed should be given each patient each afternoon until he returns to his former work. After that, one hour's rest after the noon day meal should be spent in bed for some months. In many cases a day's rest in the middle of the week is necessary to enable him to attend properly to his work the remaining five days. In spite of all that has been done with other special treatments, the profession should never forget the fact that fresh air, good food and rest are still the essentials in the management of pulmonary tuberculosis.

MULTIPLE SCLEROSIS.

After reporting a typical case of multiple sclerosis with the Charcot triad of symptoms—intention tremor, nystagmus and scanning speech—H. L. Mettler, Chicago (Journal A. M. A., Aug. 16), calls attention to the erroneous diagnosis that are often made. Of course no one symptom will establish the diagnosis of any disease, but two or more, one of them cardinal, may. In multple sclerosis of the Charcot type, perhaps the two most distinctive symptoms are optic atrophy and more or less spastic paraplegia, with the usual heightened knee jerks, Babinski symptom, clonus, etc. Next in importance and confirming the diagnosis when added to the above are the Charcot trial already mentioned. Mettler goes over the various symptoms that have been referred to multiple sclerosis, and says that unless there is stronger evidence that disseminated encepalomylitis is the same as multiple sclerosis, we are justified in holding that the latter disease is a very rare affection.

SERODIAGNOSIS OF PREGNANCY.

H. Schwartz, St. Louis (Journal A. M. A., Aug. 16), sketches the underlying principles of Abderhalden's work on cell metabolism, and reports his own experience with his methods of serodiagnosis of pregnancy. His own experience with these tests is, he says, still limited to the dialyzation method, the optic method has not yet been fully mastered anl he expects to have similar difficulties in accomplishing this as he has had in those he has already met with. Some of his failures were when he was using the biluret reaction exclusivly, and were due to carrying digestion too far, and since using the ninhydrin reaction he has obtained some positive results in non-pregnant cases from using too large quantities of serum. At all times bacterial growths, unclean glassware, leaky dialyzers and improperly prepared albumin have at times given him trouble, but discovering and locating these errors he considers a most valuable experience. On the other hand he refers to a number of instances where the reaction has been most valuable. "In eight cases the serodiagnosis has been employed as the only means of differential diagnosis, and in every one of these eight cases its answers have been true." The method, he says, aside from its diagnostic value, opens up a wonderful field for the serologic study of pregnancy and may possibly lead to a rational serotherapy of the toxemias, including eclapsia, through the mobilization of the protective ferments.

Wisconsin Medical Recorder

A Monthly Journal of Medicine and Surgery, devoted to the best interests of the profession

VOL. XVI OCTOBER, 1913 No. 10

DIABETES--ITS PHYSIOLOGICAL TREATMENT

G. G. BURDICK, M. D. and THEODORE C. F. ABEL, M. D., Chicago

Very little satisfaction would be found in discovering the probable cause of this disease. Of the many involved theories, each practitioner is welcome to take his choice.

We believe that diabetes is the result of a complicated toxemia, the compound interest of many years of bad living, which has resulted in degenerative changes in the liver and in many cases the pancreas.

It is not generally known that the average case of diabetes is just as badly handicapped in the assimilation of nitrogen foods as starches, and even at times on fats. There is no other disease so little understood and mistreated in medicine as this clinical condition.

The work of the average physician has been ineffective and slipshod, owing to his limited laboratory knowledge. It goes without saying, that no physican who is not a trained laboratory worker, or who has a laboratory at his command, can hope to influence these cases favorably, as there is no way of getting a line on just what the patient is doing, and whether he is getting better or worse, except by a complete analysis of a twenty-four hour sample of urine.

The specialist who examines a few drops of urine for a sugar percentage is the laughing stock of the skilled laboratory man. He may be too courteous to enlighten him by telling him that the sugar percentage varies with each urination, and may run all the way from one-half to three per cent at different periods during the twenty-four hours, depending upon the food the time of elimination, and the amount of water intake.

In the first place it should be understood that a well-developed case of diabetes is incurable, and the sooner this idea is realized, the quicker the profession will begin to make progress.

This of course does not mean that the sugar cannot be eliminated from the urine and practically remain away as long as the sufferer will follow absolute rules of living.

We must begin our work on these people with the distinct understanding that the patient is to cure himself, that his physician is to remain a skilled adviser, who stands ready to lead, advise and encourage the patient over the tedious journey of restricted living, into a promised land of good health. When our patient gets this firmly fixed in his mind, we should take him into our full confidence, explaining each step in detail as we go along. It is remarkable the active cooperation that I have been able to secure, the patient watching the analysis of urine from week to week, and grad-

ually interpreting it as intelligently as his physician.

It should be understood in the first place that sugar in the urine is a source of potential energy that is wasted. It means that just so much fuel has been taken in that cannot be converted into kinetic energy, therefore, we restrict the intake of this waste more and more by cutting, not the carbohydrates alone, but all foods, to well within the caloric requirements of the individual, gradually bringing the different end products of food, as noted in the urine, to an approximate balance.

To do this properly it is essential to gradually curtail the intake of fluid until we have the normal required in health, and remove the legitimate amount of waste at a specific gravity of 1.015, which is brought about by gradual restriction of all food-stuffs in common. The appearance of acetone is sufficient notice that no further restrictions of carbohydrates can be tolerated; in fact they must be increased slightly until the acetone disappears.

We have never seen a case of d'abetes that was not seriously handicapped in assimilating protein. The amino-acids are split off the protein molecule, and not being converted into useful products, are eliminated by the kidneys, practically robbing the body of its alkalies to remove them.

This makes it important that some alkali base be supplied as a food to make up this deficiency daily, and allow a normal metabolism to go on. For this reason all broths, gravies and soups of albuminous origin are contraindicated as so much more material that is not assimilated, and causes much harm in passing through the body.

It will be found that the average case can take all the way from thirty to one hundred and fifty grams of carbohydrate daily, and from thirty to two hundred grams of lean meat or its equivalent of eggs. Fats can be given in amounts of from ten to thirty grams daily, while vegetables can be used with considerable freedom, and fruits with practically no restriction. This gives a liberal diet, and usually the sugar will disappear by the fourth week.

We use a mild saline laxative, and maintain bowel flushings until no trace of extractives is detected in the urine, when they are cut to twice a week; but the laxative is continued over long periods of time, until the urine remains clear of extractives for several months.

It will be found that a constant supply of alkali is needed, and it must be maintained in sufficient amounts to keep the urine balanced at about 35000 acid units in a twenty-four hour specimen of urine. We encourage all of our people to take hot soaking baths at 108° for from fifteen to twenty minutes twice a week, followed by a cold bath for five minutes before bedtime. Calisthenics are insisted upon to develop each group of muscles to a reasonable degree.

We have found by this method that some patients improve rapidly, and that the sugar will usually disappear within one month, and they do not complain after the third week from the excessive thirst, which is due solely to the lack of alakli and the immense amount of sugar circulating in the blood.

TOXIC DIABETES.

In many cases of diabetes we find the source of sugar to be from protein foods alone, and upon the withdrawal of this food the sugar rapidly disappears, while their capacity to take carbo-hydrates is unimpaired.

We have named this condition Toxic Diabetes, for in every case of this kind an immense amount of extractives is found in the bowels, formed from the

large amount of protein waste that is undergoing putrefaction.

We have been seriously criticized a number of times for treating cases in this manner. Our critics not understanding our reasons for doing what we did.

We aim to feed animal protein to the minimum requirements of the body in true diabetes, and use fat freely until we get the production of diabetic acid in the urine, or when they are split into butyric acid in the stomach, as occasionally happens in certain individuals.

Our experience with the use of the internal glands in various combinations has been valueless, and we have practically abandoned all medication as unnecessary.

DIABETIC FOOD.

Just why these alleged foods have taken such a hold upon the physician's affection, has always been a mystery to us, as 95 per cent of them are pure frauds, containing just as much starch of wheat flour, but their great vogue shows that the profession has been at fault, and like the drowning man, has grasped at straws. There is no more reason why the treatment of diabetes should be made a nightmare to a patient by compelling him to eat all kinds of strange and ill-tasting things, for the average housewife can supply all that any patient needs, and in an agreeable form.

We have not found that it makes the remotest difference what kind of carbohydrates are given. Any kind of starch or sugar can be given, and in any form, the real point being not to exceed the actual needs of the organism by over-feeding. Every case of diabetes can assimiliate a certain amount of carbohydrates, and when this amount is exceeded, the excess will be assimilated through the kidneys.

The use of sacharine, gylcerine, etc., as a source of sweetening is folly of the worst sort, as we have demonstrated that normal people cannot take these things without harm. In no case have our people complained of being underfed after the third week, and thy are satisfied with their diet.

DIABETIC COMA.

Occasionally a diagnosis of diabetes is made when a patient is in a state of coma. A sad commentary on some medical work. Within the last year two of these cases have come under our notice, one who had been under the care of an eye specialist for a month for failing vision, the true trouble not being suspected; while the other was under the care of a general practitioner for a crop of carbuncles. In both cases intravenous injections of sodium bicarbonate in twenty-gramme doses was given twice daily, while the bowels were filled with a hot solution of sodium bicarbonate at 106° with a tablespoonful of sugar every three hours. Recovery was prompt within six hours, and both of these people are now living a relatively normal life, with the usual restrictions all of them must follow.

It is one that should be resorted to more frequently than in the past, as we have a complete kidney failure, owing to alkali starvation in the body. The immense intake of protein foods has left a large amount of amino-acid to be excreted as waste, until the alkali content is reduced to so low an amount, that elimination is impossible, and assimilation is at a low ebb. This results in carbohydrate starvation, with the production of immense quantities of acetone.

We have found by analysis that the alkali and sugar is absorbed from the colon to the amount of approximately 80% within one hour, while the acetone disappears rapidly on feeding alkali and sugar in large quantities.

This can be done freely until the acetone disappears, when caution must be observed to keep the carbohydrate food well within the toleration of the patient.

Pessimism as to the ultimate outcome of a case of diabetes is not justified. There are very few cases that cannot be controlled perfectly, and with the means at the command of any physician. A weekly analysis of a twenty-four hour sample of urine, a diet properly balanced and restricted to the actual needs of the patient, the removal of all complicating toxemias from the bowels, a supply of sodium bases, and a restriction of the actual amount of water to that required if the patient were in perfect health; due care being taken to see that the capacity of the kidneys is taken into account.

We have found no drugs needed beyond what was indicated above, and no strange foods have been found necessary. It means moderation, self-denial and perserverance on the patient's part, and suscess is assured.

SAVING AND INVESTING

FRANK P. DAVIS, M. D.,
Enid, Okla.

THE ART OF SAVING.

There is nothing that has such a tendency to strengthen good habits and character, and to raise one to a position in life, as the possession of money. A saving habit enables one to build up a credit as well as to establish a fund that will tide him over the rough roads of adversity should they be met in after life. Above all else is the confidence that comes of having a reserve fund which he knows will protect him should he be compelled to use it. It increases his independence, and gives him a clear mind that enables him to put more energy into his work. The man who has a reserve that he has saved from his own labors will be free from many of the cares and worries that hinder the success of other men. Saving not only teaches the value of money, but gives him a greater confidence in himself. The saving habit builds character—character builds credit,—and credit is the most vauable asset that a man can have.

SAVINGS.

Possibly the best means of saving small sums of money—and doctors receive their income in small sums—is to deposit them in savings banks. Savings banks are admirably calculated to take care of your money and pay you a fair rate of interest on the same. When one has money by him he is constantly tempted to spend it for articles not absolutely necesary. If, however, he every week or month, deposits these small sums in a savings bank, it will, like a plant in a garden, increase and multiply while he sleeps, and grow from year to year. It is generally a multitude of small expenditures that keep men poor, so it is the small savings that make them rich.

Persons living in the country and in small towns have been denied the aid of the savings banks, which have been such a help to those living in the larger cities. Savings banks accept deposits of one dollar or more at any time during banking hours, on which they pay interest at from 3 per cent to 4 per cent.

Postal savings banks which are now conducted at the post offices in most of the larger cities, offer absolute safety to depositors. These government banks offer another inducement —that the deposits cannot be attached or garnisheed, but this will not interest the man who is not trying to

dodge the payment of his own debts. The rate of interest paid by the Government is very low—only 2 per cent. While the safety of funds deposited in the postal savings banks cannot be questioned, and while safety should be the first thought in placing our savings, yet it is not the object of financing. The real object is to earn profits. Hence we should place our funds where they will earn the greatest possible income with a reasonable margin of safety. For the small amounts the regular savings banks offer the best combination of safety with a reasonable income.

Since the "mail order" principle is being adopted by nearly all lines of business, it was but reasonable to expect it would be used by banks in soliciting deposits. I have in mind one bank which makes a specialty of deposits by mail. This bank pays 4 per cent on sums of fifty dollars or less and 6 per cent on sums over fifty dollars. It is a very simple matter to place small sums of money in a letter and send to the bank where it will bear a fair interest and be safe. This bank has become accessible to the depositor wherever there is a post office. The man in the country or small town can send his deposits by mail and in a few days receive his pass-book showing the deposit properly entered. I especially approve of this arrangement for those who are not near a local savings bank, and I will be pleased to give any one further information if they care to write me about this bank.

INVESTMENTS.

I shall not consider the many wildcat schemes, such as oil, gas and mining stocks, rubber plantations, faraway farms and lots, and other "blue-sky" propositions, for the reason that they cannot be considered as legitimate investments. No man capable of saving money should for a moment consider any of these graft schemes.

The first consideration in every investment should be safety. This is equally true whether the amount is one dollar or one million dollars. The investor has the right to demand the best security he can get. He also has the right to demand the highest interest return that can be obtained without sacrificing safety. It is extremely important for everyone in deciding upon his initial investment, to make no mistake with his first hundred or thousand dollars—the beginning of those savings that are to provide for the "rainy-day," or for his comfort and ease in the later years of his life. Conservatism is the foundation-stone of every real investment. The safety of the investment structure that you build is dependent upon the care—the conservatism—with which you choose and lay the foundation stones.

First mortgages on improved farm lands are considered very desirable investments. When great care is exercised in making the loan they may be considered as safe and conservative. In no case should you loan to exceed one third of the assessed valuation of the land. Look up the value at which the land is assessed for taxation. It seems to be a universal rule that property has a lower value on the day that the assesor comes around than on any other day in the year. As a rule the income from this class of investments is not as great as I believe one should have, it being seldom that real estate mortgags will net more than five to seven per cent. In some states, as in Oklahoma, where mortgages are taxed the income will be very small after the taxes and expenses are paid.

Chattel loans to farmers are a good investment. The security should be sufficient to make the loan perfectly safe. I have often loaned to my clients thus combining the colection of bills with the investment, as is fully out-

lined in my book "How to Collect a Doctor Bill." It is usual to make the notes bear the legal contract rate of interest when making these chattel loans. The beauty of this class of paper lies in the fact that you can always discount it, or use it as collateral for loans at your bank, should you need the money at any time. This is an important matter for the man who must make his investments outside his business or profession. William H. Lough, a well known writer on business matters, said in a recent article, "Never send all your cash reserves so far to the rear that you can't get them into the thick of the battle when needed." Keep your reserve where you can use it, or should you see a better opportunity to make a more remunerative investment.

Your capital should be kept busy. Idle dollars earn no dividends. Butler Brothers, the great wholesale mail order house, put their advice to merchants in these words: "The whole secret of profit lies in the lone dollar. It makes no difference whether its number is one or a million, if it isn't put to work it's useless. It may earn a few cents a day or it may earn a few cents in a year. In the one case it is doing its duty—in the other it is loafing on the job. Every dollar you have should be made to pay its board and keep. Have your dollars earned anything today?" The idea is, of course, that in business you should turn your capital as often as possible. In the case of the doctor he will do well if he can keep his dollar "loafing on the job" and earning a few cents a year.

The local building and loan association in a prosperous town offers a good place to both save and invest small sums. But please note that I emphasize the word local. We have had many so-called National associations that I cannot endorse. The local association is managed by local men and its work is limited to the loans that come under the personal inspection of its officers. On the other hand those that place business in places remote from the head office must depend on agents, and many times these men recommend questionable loans to increase their own business.

THE ELUSIVE DOLLAR.

The man who spends 25 cents per day has spent the interest on $1500.00 at 6 per cent. If he would place that 25 cents in a savings bank at 6 per cent at the end of the year he would have $92.70, or if he kept it up for five years he would have $515.78.

A CLINICAL REPORT ON BURNS.

Dr. Alexander, of London, has made a report of twenty-seven cases of burns, according to Ellingwood's Therapeutist, all of which he treated at the same time. They were of patients who ultimately succeeded in escaping after great difficulty from a burning building, the burns being on the face, arms and breast. He used strong boric acid solutions in seven cases, picric acid in five cases, carrion oil in five cases, and ichthyol oil in five cases. He concludes that the cases that were treated with picric acid resulted much more satisfactorily than those treated by any other method. He had no difficulty from poisoning, and believes this to be a minor danger. If the urine became dark from the acid he would give epsom salts and relieve the system of any possible toxemia. In mild burns the boric acid solution gave good results.

Repairing a lacerated cervix will not cure a general ptosis of the abdominal viscera, but it will lessen the liability of that cervix to cancer.—Interstate Medical Journal.

FISTULA of the RECTUM

CHARLES J. DRUECK, M. D.,
Chicago, Illinois

After summarizing 2196 cases of rectal fistula studied from hospital records Doctor Turtle says that less than 45 per cent were even claimed on the records as being cured. Not all of these were operated upon by rectal specialists but they were probably cared for by careful capable surgeons and it is because of statistics like these that I present this matter. Such figures are inexcusable.

A fistula is a non-granulating sinus within the retcum or about the anus having one or more openings and resulting from some pre-existing abscess usually in the peri-rectal or ischiorectal structures but not necessarily so. It may originate in some other organ as the bladder, urethra, vagina or uterus, a suppurating broad ligament or ovary or a necrosed bone or vertebra. The infection may later burrow into the rectum or the whole trouble may be found to be extra rectal. Therefore just because your patient has a fistulous opening upon the buttock do not presume it must be rectal but find out just what it is and then you will more than double the above estimate of per cent of cures. Of course there are some malignant, tubercular or syphilitic fistulae that are incurable.

Fistula are often branched or multiple and the openings may be quite a distance from the anus. The whole perineum and buttock may be indurated and hard or if the abscess has filled and emptied several times the parts become honeycombed with a great many fistulae communicating with one another. Some part of this great labyrinth is always abscessing. Kelsey reports between twenty and thirty sinuses in one case.

Why do rectal fistulae refuse to heal spontaneously? This question has been answered variously by different authors but probably a number of factors combine in each case and after all it resolves itself into the single word reinfection. The percentage of cures is determined by our ability to ferret out these different avenues in the case at hand.

First there is contact infection by such ways as (a) forcing of fecal matter into the fistula from the bowel. (b) Or outside infection through the external opening. (c) Sometimes the small opening or the irregular shape of the fistula retains the infection and prevents proper drainage of the sinuses or holds necrotic tissue in pockets. (d) The tubercular sinus is lined with caseous degenerating granulations and is also surrounded by a dense cicatricial tissue.

In a second class of cases the circulation venous or lymphatic is at fault. The human animal spends most of his hours sitting or standing and in this position there is a sluggish return circulation.

Sometimes even when the sinuses have been widely opened and thoroughly drained and all sloughing tissue has been removed they still refuse to heal although careful search fails to show branches or diverticuli. Hartman has suggested that these persist because of osmosis of infecting agents from the rectum through the thin walls of the rectum. I think these tissues become clogged with bacteria which impede but do not strangulate the tissue until it becomes a harbinger of infection. In the same manner there may be a rectal ulcer or other infection which the lymphatics try to carry off but in so doing the lymph glands become overloaded and break down resulting in an abscess which is drained thus temporarily relieving the

system but the lymphatic connection between this node and the primary source of infection in the rectum or wherever it may be is still virulent and reinfecting the site of the abscess which is the base of the sinus. This method of infection is I think an important factor because the phagocytic action of the white corpuscles is insufficient or slow. That is the opsonic index is low. I have recently used the immunizing sera in these cases with very encouraging results. If the sera are used early they stimulate the immunizing mechanism.

Although the pathogenic micro-organism is usually the streptococcus, staphlococcus or the colon bacillus it is not always so. Sometimes tuberculosis, syphilis or carcinoma are at the foundation. It is well to remember that ten to fourteen percent of all patients presenting rectal fistula have active tuberculosis of the lungs but of course not all phythsical patients having rectal fistulae necessarily have tubercular fistulae. Hartman found that fifty per cent of his cases were tubercular. It is estimated that five per cent of all tubercular patients have rectal fistulae. The nature of the infection may be determined by examining the discharge or scrapings from the lining wall of the fistula either microscopically or by injecting it into a guinea pig.

Any exhausting disease such as rheumatism, diabetes, chirrhosis of the liver or the acute fevers may have associated an ulceration of the rectum. Typhoid fever and dysentery frequently have such a complication and then a fistula may result. In the last two diseases a true perirectal abscess may be found that has resulted from the escape through the tissues or the lymphatics of the bacteria that caused the original disease.

Frequently the abscess that caused the fistula originated from an injury or ulceration of the crypts of Morgagni and the lymphatic absorption and infection that takes place. This ulceration may persist after the abscess has opened and drained, because the sinus connects by its lymphatics with the infecting host of the crypt and the pyogenic organisms overwhelm the leucocytes and thus protract the discharge. It is for this reason that it is so all important to ferret out the original site and source of infection. Every movement of the rectum, perineum or legs disturbs the approximating surfaces of the sinuses and a moving surface of course cannot adhere.

Fistula are classified as follows:

1. Complete — ordinary, external, and internal.
2. Incomplete or blind external and internal.
3. Horseshoe.
4. Recto-vaginal.
5. Recto-vesical.

The ordinary complete fistula is a sinus with an internal opening into the rectum and one or more openings on the skin. Hence its name. This is the most common type of fistula. An external complete fistula is one with both of its openings on the skin and not communicating with the rectum while an internal complete is one with both openings within the rectum and not involving the skin. Not every fistula communicates with the rectum although the great majority of them do.

An incomplete or blind external fistula is one which begins in the perirectal or ischio-rectal structures and opens upon the skin but does not extend into the rectum. An incomplete or blind internal fistula has an opening into the rectum and a sinus extending into the perirectal tissues, but has no other opening into the rectum or upon the skin. It differs usually from the complete variety in that there is a broad undermining of the mucous

membrane instead of narrow channels. The internal opening is situated often at the base of an ulcer or hidden in the folds of mucous membrane.

The horseshoe fistula is nearly always an old case and takes its name from its fancied resemblance to a horseshoe in shape. In this variety, the original openings have become blocked and the retained pus burrows in a new direction and finds a new outlet. Thus a typical horseshoe fistula has one opening within the rectum and one or more external openings on either side of the anus. Sometimes the pus burrows around the rectum in the loose areolar tissue and forms a new opening on the opposite side of the anus from the first. In this burrowing the pus generally passes posterior-to the anus and very often the internal opening is found in the median line posteriorly. There are many deviations from this typical description. A horseshoe fistula may have only one external opening and yet the pus may have burrowed all around the rectum and the resulting fistula be either complete or incomplete in form.

Recto-vaginal fistulae are of two kinds: First: those high in the vagina and second those in the lower part. On the whole they are uncommon. If the opening is small there is little escape of feces so long as the stool is formed but one of the most common and annoying symptoms is the escape of intestinal gas which produces a bubbling or hissing noise. The patient has of course no control over the escaping gas and the odor finally forces her to avoid society and to stay at home until she becomes melancholy from brooding over her trouble. A fistula in the upper part of the vagina is usually due to cancer of the cervix which generally has progressed so far that curative treatment is out of the question. On the lower part of the vagina and at the vulva fistula often result from imperfect union in repairing a torn perineum or from the sloughing of the septum after tedious parturition. Entero-vaginal fistula or openings of the small intestine into the vagina are traumatic openings produced during operation or else either congenital or artificial vaginal 'ani. Recto-vesical fistula like recto-vaginal are the result of traumatism or malignant disease.

SYMPTOMS.

The first symptom which attracts the patient's attention is the local abscess which has the symptoms of any collection of pus; namely redness, swelling, pain and fever. The abscess ruptures and discharges its contents thus relieving the local distention. The tissues are soft and tend to retract and contract, leaving only sufficient opening to permit of the exit of subsequent discharges. The character of the discharges suggest somewhat the age of the fistula. The excretions of a recent abscess are thick, abundant and constant but as the lining membranes grow old and are covered with lardacous granulations the discharges become thin, watery and less in amount. After the abscess has emptied itself the patient suffers no discomfort except the purulent discharge which is always fetid and sometimes contains gas and feces making it difficult to keep the part clean. As the retained pus burrows forming new abscesses and sinuses the discharge gradually increases. When the discharge of a given sinus is small in amount and irregular in outflow the opening tends to become occluded and retention occurs. Thus a new abscess is produced which rupures through the old sinus or forms a new outlet. In this way two or more fistulae often connect with a common abscess. In any case if the discharge ceases or becomes irregular always suspect new abscesses. The incomplete internal fistula are the most

painful because the retained pus causes pressure during defecation. Such a fistula cannot be diagnosed until a digital examination is made and the finger when withdrawn is covered with pus and blood. The feces also when formed are streaked with pus and blood. Constipation is induced from fear of pain during defecation and the sufferer goes on in this condition for years before he seeks surgical relief.

EXAMINATION.

Much valuable information as to the character of the fistula and its extent is learned from the patient's description. If a slight abscess recently ruptured and leaving a free discharge of a small amount of pus is found it indicates a small fistula with openings near the external sphincter. The position of the patient for examination is largely a matter of choice. The lithotomy position is more advantageous where the trouble is at the anus or not too far within. The Sims position the patient resting on the affected side is preferred by many especially when making a specular examination. When the trouble is high up within the rectum the knee-chest position is better. No one position suits all cases and even during the examination of a given case it may be of considerable advantage to change the position because the entire field must be explored Even if one fistula is found a thorough search must be made for others or for other rectal troubles. With such an examination the diagnosis is not difficult except in internal incomplete or in the horseshoe variety. Separate the buttocks by grasping the glutei on either side with one hand the fingers reaching toward the anus when by gentle traction the external fistulous opening if near the anus will be seen in a little depression or in the center of a mass of granulations in the radiating folds of the anus. The external opening may be, however, quite a distance from the anus even out on the thighs or legs and be so small as to escape a cursory examination unless a drop of pus be expressed during the manipulations. It may be so small as to admit only a fine probe except in tubercular fistula when it is usually ragged or appears as though in the base of an ulcer. By palpating about the anus the tracts may be detected subcutaneously by their hardness and by a finger in the rectum pressing toward the induration a drop of this pus will usually appear at the external opening. The tract is sometimes direct from one opening to another but there is not necessarily a sinus. The abscess may open directly on the surface. In a recent straight fistula the external opening is large. Sometimes the tract is very circuitous and the pus may burrow under the glutei muscles and open in the groin or on the thigh even as low as the popliteal space. Sir Astley Cooper mentions an autopsy where the fistula opened in the groin but he traced it back along the spermatic cord and found it ended in an apparently ordinary fistula in the rectum.

The internal opening is frequently just above the external sphincter and is found as an indurated spot or a raised mass or else as an ulcer with rough edges. All ulcerated and inflamed spots must be carefully examined, because they often contain the internal opening of a complete fistula or the opening of an internal incomplete. In case the internal opening is not found, it may be located by injecting milk or some colored fluid through the internal opening. The anus being dilated enough for inspection, the fluid will be seen as it comes through the internal opening into the rectum. Injecting hydrogen peroxide for diagnosis has been suggested because the gaseous disintegration di-

lates all parts of the sinus and bubbles through all the internal openings, if more than one are present. There is danger in this procedure that you will drive infective material in to new and healthy tissue. The internal opening is not always the upper limit of the fistula, but the mucous membrane may be undermined for several inches above the opening.

A word about probing a fistula: probing at times other than when operating is objectionable and dangerous, because it is painful and may produce new channels, and besides affords no information but what is gained from careful inspection and palpation. If the probe is forced out of the sinus and into the tissues, it may mislead the examiner as to the condition of the fistula, besides carrying infection into new fields, thus forming new sinuses. I never probe a fistula until I am ready to operate; nor do I hunt unnecessarily for the internal opening. It matters little whether you find the internal opening or not, before the operation, for when you operate you will find it much easier than is possible on a conscious patient.

Spasmodic contractures occur during examination if the patient is awake, which make the examination painful and dangerous; but when the patient is anesthetized and quiet, you have no trouble in tracing out any or all sinuses. When probes are used, a large variety are essential from a fine silver probe to a large, soft uterine sound. The probe must be introduced carefully and without force until it has gone as far as it will, then with the index finger of the left hand within the rectum, one may find the probe propecting through the internal opening or in some instances, covered only with the mucous membrane, or again, it may have passed away from the rectum and cannot be felt at all.

Lardaceous granulations, the result of chronic inflammation, line the tract of the fistula and contain many newfound blood vessels. The granulations prevent healing of the sinus by keeping the walls apart. A recent fistula is, however, sometimes lined with healthy granulations which form new tissue, and such a fistula may heal spontaneously.

Blind internal fistulae are the most difficult to diagnose and are found only after a careful examination of the interior of the rectum. Any case presenting persistent uneasiness within the rectum and showing the presence of pus in the stool, unless otherwise explained should be thoroughly examined. The following case is cited to show how misleading a cursory examination may be: Mr. S. W. passed through a mild attack of typhoid fever and at the end of the third week developed a perirectal abscess which was lanced and which promptly healed except a small sinus. From a pinhole opening of this exuded a discharge imperceptible in amount, but sufficient to keep the parts moist and fetid. A digital examination of the rectum some months later revealed a small amount of induration above the external sphincter, but no distinct cordlike sensation that would signify a sinus. The director was introduced and the tissues divided along its full length, thus exposing a suppurating surface, irregularly circular in outline, about one and one-half inches in length. All the edges and pyogenic surface of this ulcer were removed and the openings of two deeper sinuses were brought to view. The first tract led almost to the base of the urethra and important structures were exposed; the second penetrated the rectum just above the sphincter. This latter opening was closed with chomicized catgut sutures after the method of treating rectovaginal fistulae, and with the connective tissues sutured over the first

stitches to give additional support. The sinus leading toward the deep perineum was packed wide open and allowed to granulate from its base.

It is important to mention at this time that the finger within the rectum detected nothing that would suggest deep sinuses but nevertheless, two very important diverticula existed. The impression on examination was that this was a simple external complete fistula which would heal kindly if divided on the director. However such an operation would have been worse than useless, because the outer part of the sinus would have healed over, only to reform again in a few weeks. The stereotyped operation as set down in the text books, or treating the sinus by astringent injections would have been a signal failure. This case is detailed to show that each fistula must be treated upon its own conditions. Frequently narrow branched tracts lead off into the deep tissues and perhaps encroach upon vital organs.

PROGNOSIS.

In conclusion let me say spontaneous cure occurs only when the abscess has no rectal communication and when the skin opening is large. In other words when the abscess is very superficial. In all other instances the sufferer must receive medical attention. This may be minor office treatment or it may be a major surgical operation according to each case. The likelihood of cure depends upon circumstances and the underlying cause but this may be said.

1. Practically all non-tubercular fistula may be cured.

2. If carefully treated all of these cases will have good rectal control following any operation that may be needed.

3. The majority of tubercular fistula may be cured if the patient is in good physical condition.

4. Even bad tubercular fistulae may be relieved and secondary suppuration prevented.

The November Recorder

The articles by Dr. Frank P. Davis on business as it relates to the doctor's welfare are proving even more interesting than was anticipated and the publishers of the Recorder are in receipt of many complimentary letters on the quality of Dr. Davis' writings, and the expressions as to the amount of good resulting from their reading is evident from the tone in these numerous letters.

For November Dr. Davis will write on "Investments." This subject is of much importance to every doctor because, as is well known, the physician must put his money into such securities as will not only make a certain return, but in themselves will be safe and available in ready cash if the need becomes a necessity.

The Recorder readers will be pleased to learn that another article will appear in November from the pen of Dr. E. F. Fish. For this number the doctor will take for his subject "The State Boards of Medical Examiners." It is a live topic at all times and Dr. Fish will bring out some phases which will be worth reading.

"Toxemia in Pneumonia and Other Diseases" will be handled for November in an article by Drs. G. G. Burdick and T. C. F. Abel. Both of these writers are familiar to Recorder readers and the material coming from their pens is of extra value.

"Hot Air Treatment" by J. A. Burnett, one of the Recorder's frequent contributors, will also appear in the November issue.

These are but a few of the many good things which will appear for November and doctors should make sure that they receive their November number.

LIVER AND BILE

By F. F. CASSEDAY, Ph. B., M. D.
Portland, Oregon

Any light which can be thrown upon diseases of the liver, or any suggestions which will aid the practitioner in the line of treatment, will I feel sure be helpful to all physicians who practice in regions where malaria and liver troubles prevail.

As a preliminary let us make a short review of some of the functions of liver and bile. The amount of bile secreted by the average adult ranges from 800 to 1200 cubic centimetres in each twenty-four hours. It is a diffusible fluid and contains 10 to 15 per cent of solids. It does not contain albumen, but has mucin. Principal ingredients are Cholesterin (not poisonous), coloring matter and the biliary salts. Most important coloring substance is bilirubin and its derivatives.

The toxic nature of bile was demonstrated several years ago. Every man forms enough bile in 8 hours to kill himself by his own secretion. In twenty-four hours the kidneys do not eliminate half the quantity necessary to poison a man. Volume for volume bile is nine times as poisonous as urine. In equal lengths of time bile is six times as poisonous as urine. Bile decolored by means of carbon reduces its toxicity two-thirds.

Probably a small portion of the bile is absorbed in the duodenum after the bilirubin has been neutralized in the intestine by precipitation and action by the contents of the gut during digestion. If the poisonous elements have not been entirely neutralized it is turned back to the liver again and again. Neutralization of the poisonous elements is also carried on in the blood and the tissues, as well as in the intestines. The blood and the tissues seem to act as safety valves for excessive flow of bile as they go to the relief of the neutralizing agencies of the intestines and the liver itself and absorb bile freely. This action however is neither rapid or constant, and in case of impermeable kidneys the body is liable to be overwhelmed before elimination and neutralization can care for the oversupply of bile. Many cases ending in sudden death have all the symptoms of uremia, but are in all probability due to just such a condition as I have described. The kidneys carry off a large amount of the modified or neutralized bile in its changed form, in fact it seems to be a fact that the kidneys are the main channels of elimination. When the metamorphosis of matter in the liver is checked or lessened the urea is diminished. As urea is essentially a diuretic such diminution in the supply lessens renal activity.

When the jaundice is due to some infectious disease the kidney is also affected in some cases, and this adds another entirely different complication.

In cases where there is marked jaundice with normal renal activity the prognosis is unusually good, but in those cases noted above where the quantity of bile thrown into the blood is large and the blood and tissues cannot take it up with sufficient rapidity, and the neutralization in the intestines is retarded or incomplete, and the renal activity is impaired poisoning of the individual results and death follows.

In cases where one or more of these conditions obtain there may be convulsions, coma and death, with all the symptoms of uremia, when the real cause of death is auto-toxaemia from absorption of bile, failure of constructive metabolism to form urea, and convert albumenoid substances. The conditions bringing about fatty degenera-

tion of the liver, and atrophy I will not speak of at this time as I wish particularly to call attention to functional disturbances which cause diseases, notably toxaemia.

Of course there are special varieties of malignant jaundice where conditions noted above do not apply at all.

In some individuals the neutralizing agencies care for the bile secretion so effectually and thoroughly that there are no indications of auto-intoxication. This was impressed upon my mind very thoroughly many years ago by a young man whom I saw in the east. He was a farmer boy about 18 years of age, robust and healthy. There had been no action from the bowels for twelve days, and the hardened feces filled his transverse and descending colon, so fully that his condition was diagnosed by two physicians as a tumor. Here was a condition where not a drop of modified bile was eliminated from the intestinal tract for twelve days, and he was not jaundiced. The kidneys eliminated the modified bile, the bilirubin was neutralized and precipitated into the duodenum, the blood neutralized the biliary salts, and the liver and tissues assisted in the operation. The boy was not sick at any time, only compained of distress in his abdominal region, and inability to have bowel movement. It is only fair to assume that a certain amount of the bilirubin was probably incased in the hard feces in the colon.

The tendency in late years to eat predigested food, less bulky food, with irregular hours for feeding, bolting food, the pressure for existence and business these latter days with the attendant nervous strain, has played havoc with the normal digestive functions and especially cause wide and violent variations in the quantity of bile secreted, and may increase the activity of the poisonous elements like bilirubin and the biliary salts not only of the increase in quantity of bile, but by the breaking down of the neutralizing agencies in the intestines, blood, tissues, the liver. If to this is added a decreased amount of urea on account of defective metabolism and consequent urinary impermeability we have conditions, which in my opinion, largely account for the great increase in auto-intoxication or toxaemia from poisons generated within the body from the bile, as well as by ptomaines from tainted food.

There are certain individuals who suffer from defective liver metabolism, from gall stones in ducts and in gall bladder and from inflammation of the gall bladder in connetcion with any of the other conditions. These individuals are great sufferers from inability of the body processes to neutralize and eliminate the bile. They suffer from severe and frequently recurring headaches, vomiting of bile, weakness and depression, accompanied with more or less urgent symptoms of auto-intoxication. The toxaemia in these cases is somewhat mitigated by the ability of the stomach to reject the bile after its regurgitation into the stomach. These cases even after operation for removal of gall stones, and removal of the gall bladder, still suffer from the old conditions. I have in mind such an one.

Auto-intoxication from the poisons generated within the body is on the increase. These poisons have a tendency to create kidney disease if the poison is not neutralized before the modified bile or urine reaches the kidney. They also are a menace to the liver itself by interfering with liver metabolism.

TREATMENT.

Catharsis and stimulation of the liver alone will certainly not meet these conditions. Perhaps the liver is already pouring out an excess of bile beyond body requirements. Elimination may be proceeding fairly well, and the

kidneys may be healthy. Still many of these sufferers have intestinal indigestion, fermentation, inordinate quantities of gas. They may have extreme acidity, and in our efforts to correct the acidity by soda we may unconsciously be removing an agency in the duodenum which neutralizes the bilirubin, and reduces the antidotal action of the blood on the biliary salts. Of course this is mere conjecture.

In experimenting with the bilirubin it was found that bile decolored with charcoal was two-thirds less poisonous, that is to say that charcoal reduced the toxicity of the bile more than sixty-six per cent. This experiment was made with rabbits.

Now in practice I find (and many physicians corroborate this) that animal charcoal is one of the most useful remedies we have in ptomaine poisoning. It is best given in what the homeopathic physicians know as the 1x or 2x trituration or tablets of Carbo animalis made by Boericke & Tafel. From four to six of these tablets or 5 gr. powder of tritination administered at intervals of from one hour to four or six times a day will frequently change an apparently hopeless case of ptomaine poisoning and bring about prompt recovery.

The animal charcoal (made from charred hides) is far superior to wood charcoal.

Arsenic in small doses and iodine well diluted in small doses may also be indicated in auto-intoxication, and toxaemia in the form of ptomaine poisoning. Some form of organic iodine like Burnham's I favor for these cases, but in a very diluted form.

Animal charcoal has the preference with me and is well worth a trial in all these obscure cases where we have toxaemia. It has the demonstrated power to neutralize and antidote bilirubin.

WHY IS IT?

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Every little while we pick up a medical journal, and more particularly that class peculiarly scientific, in which something is said about some rather simple thing; something which the man who does not happen to be a therapeutic nihilist fails to look upon as anything more than ordinary.

Recently there came before our eyes a paper on diarrhea—diarrhea of a simple nature, such as we all encounter frequently. The writer went on to tell of the different sorts of conditions of this sort, with a long winded description of the pathology and symptoms of the various sorts, and ended up with but a short note on treatment, leaving the reader, in the main, but little better off than before. The use of opium, wonders to relate, was said to be taboo. About the only remedy suggested was bismuth.

Why is it that these men who give so much attention to pathology fail in their therapeutics? It is a noticeable fact that such is very frequently the case. Is it due to the fact that, in their endeavor to be absolutely scientific they overlook the fact that something should be done to bring relief to the patient? Do they consider the therapeutic end as non-scientific and consequently unworthy of more than passing attention.

In this particular paper nothing was said relative to the cleaning out of the bowel as a primary move, although those who have studied the treatment of diarrheas have found that such action very frequently overcomes the

trouble with but little, if any, subsequent medication. Writers of this class do not seem to realize that a diarrhea is the direct act of nature to overcome and get rid of the irritative cause of the condition and that by increasing, rather than decreasing the bowel function the irritation may be swept out entirely. Our forefathers in medicine clung to those drugs which would either inhibit or wholly destroy bowel function for the time being, and it was their experience that there were many recurrences and that the condition was liable to become subacute or chronic in nature. Today, with the following of the clean out policy, there are but few recurrences. While bismuth may not act as radically as do the opiates in checking the bowel functions, still this drug does inhibit the function, and in this way, unless the bowel has been previously prepared, acts to retain much of the irritative matter.

Why is it that no mention is made of the intestinal antiseptics by this class of men? This is probably due to their listening to the so-called authorities who would tell us that it is a physical impossibility to thoroughly render the bowel aseptic, and despite the fact that many who have employed this class of remedies has found that an improvemnt takes place immediately upon their exhibition. It may be, and undoubtedly is, true that it is an impossibility to render the whole gut really aseptic, but when, after clearing the bowel as nearly as possible, we see a change of the discharges we are unable to think otherwise than that the antiseptics have at least some action for good. When we see a stinking fecal mass, without form, changed to one of form and with but little if any odor, we are obliged to think that there is something worth while in the intestinal antiseptics. Nor is this guesswork on the part of many doctors.

Why is it that so many of the so-called authorities decry the use of cathartics and subsequent antiseptics? Is it possible that they are so busy writing that they do but little, if any, real practice? One would believe that such is a fact, if he bases his ideas upon their arguments. The man in the field—the one who is coming in daily contact with all sorts of conditions—if he be a man who depends upon his own resources, not infrequently finds that by following the teachings of the authorities, results fail to obtain. On the other hand, by following the suggestions of other men like himself, based upon ideas gained from active practice, satisfactory results follow. It is a noticeable fact that these men who write papers of the sort mentioned above, are of the class who rely almost, if not quite, wholly on the teachings of the authorities, but give little, if any credence to the findings of the practical men in medicine.

Those who have employed the clear out, clean up and keep clean method in the treatment of diarrhea have found that such condition usually requires but little other than passing notice. They learn not to "fuss" over the condition, as it is their experience that the following of the method brings results, and quickly at that. They spend but little time endeavoring to differntiate the classifications, as they know that each class requires practically the same treatment. Nor do they lose valuable time through such action. They know that the cause, whatever it may be, is usually within the gut, and consequently make an endeavor to remove it, or to inhibit ith subsequent effect.

It is possible that the failures to obtain results in the treatment of the ordinary diarrheas are due to lack of recognition of the fact that no matter

what class, all conditions of this sort receive practically the same line of treatment, or that, in an endeavor to pick out all the finer pathologic points the condition may have become subacute or chronic. Of course it is proper that we should know what we are treating to as great an extent as is posible, but while making our determinations we should not overlook the indications of the present moment. The discharge is an indication for assistance and this should be rendered at once. If the condition is aborted before we make our full determination so much the better. If it is abated in its fury that is a good point to have gained. The real therapeutist does all these things and gets results in almost 100 per cent. of all the cases coming under his observation. He, instead of endeavoring to "tack a name" on every disease he encounters prior to instituting treatment, meets those indication presenting, and with agents which, from previous experience, he knows should bring forth results. The facts of the matter are, that these men who meet indications are the real doctors—the men who bring relief to the sufferers. They may not be able to go into detail relative to the finer pathologic points, but they do know their therapeutics, and those properly applied.

Why is it that these men so frequently "make mountains out of molehills?" They go into considerable details regarding the simplest acute conditions. Is it because they like to use words, and plenty of them? Long ones at that? Or is it possible that they wish to impress we lesser lights with their great superiority?

The particular writer we have in mind said that Rogers of India suggested emetine for diarrhea. We believe that he is somewhat in error. Although Rogers might have had simple diarrhea in mind, we have failed to see the drug suggested in other than dysentery, and this is not a simple diarrhea, by any matter of means. We do not say that emetine would not be effective in the latter condition, as we believe that it would, but the writer's statement was misleading and showed that he was not wholly conversant with the use of the drug. We who have studied this active principle have long known that it gives all the desirable effects of ipecac and have realized that it might be effective in dysentery, and have employed in combination with the intestinal antiseptics in simple diarrhea. The only reason why it was not employed to a greater extent was undoubtedly due to the fact that, in some cases, it produces nausea. Rogers suggestion that it be employed hypodermically overcame this objection and it is very possible that the drug will come into general use for the treatment of diarrhea as well as dysentery.

The "why" in our topic is answered in a few words. Usually those men who give so little attention to treatment are ignorant of that very important portion of medical practice. They lose sight of relieving their patients in their great endeavor to "find out what the matter is." They have concluded that drugs, as a rule, are ineffective and that "nature should take her course." They tell us that many diseases are "self-limited" and that the patient will either survive or die, regardless or therapeutic application. When we say anything about abortion of disease these men hold up their hand in horror. But we who make a study of drugs and indications for their applications, pay but little heed to arguments to the contrary, as we recognize results obtained, and that is sufficient. The time will come when the man who fails to give his patient relief, and who rarely obtains

satisfactory results, will be cast aside, even though he may be ultra-scientific from a pathologic or etiologic standpoint. He will be obliged to study his remedies and how to apply them. Then there will be no "Why Is It?".

MATERNITAS

By CHARLES E. PADDOCK, M. D., Chicago, Ill

(Continued from Page 264 September Recorder

Scarlet Fever.—This is one of the diseases most dreaded. The period of incubation, that is the time following exposure until the disease manifests itself, varies. In a large majority of cases it is from two to four days; it may even be shorter than two days, or it may be several weeks. It is possible for the child to have the disease the second time, but such cases are very rare. The rash generally appears first about the neck and shoulders, then gradually on the chest and over the entire body. It is a smooth, scarlet rash not raised above the skin as the measles rash. This rash begins to fade from the fifth day of its appearance. It should be four weeks after the rash has disappeared, or even longer, if there be any peeling or ear discharge, before the child mingles with other children. A close exposure seems necessary to contract the disease. After the child has fully recovered the house should be thoroughly fumigated. In cities the case is reported to the health department by the physician and the house is fumigated by that department.

Measles.—Few children who have been exposed to measles escape. It is not necessary for the child to have a close exposure to contract this disease. Because of frequent complications the case should be managed scientifically, under the care of a physician. The period of incubation averages twelve days; however it may be as many as twenty-one or as few as seven days. The attack is generally ushered in with a marked coryza, that is, a watery discharge from the nose and eyes; some fever; a feeling of general lassitude; and stomach disturbances. After from two to four days the eruption appears. This eruption appears first as small, dark-red spots seen on the neck or at the edge of the scalp. It soon is slightly raised and the number of spots increases, spreading to the trunk and limbs and perhaps coalescing. As soon as the case is known to be measles the patient should be isolated. A child should be kept away from another who has measles for at least two weeks after the rash has entirely disappeared.

Influenza.—A child should be kept away from anyone suffering with influenza. Young infants are especially susceptible to the infection. Using a soiled handkerchief on the mouth or nose of the infant is a filthy and dangerous habit; the handkerchief always contains infective material to which the young infant is strongly susceptible. The treatment of influenza in infancy or childhood is in the prophylaxsis, that is, in having the child avoid coming in contact with anyone suffering from the disease; and in using clean linen about the nose and mouth.

Malaria.—When the mother has malaria the disease is frequently present in infants, especially in infants fed upon the breast. In such circumstances proper treatment of the mother usually cures the infant.

German Measles.—This disease is less contagious than ordinary measles. Infants under six months are rarely

affected. It is one of the lightest diseases of infancy and rarely leaves any bad effect. The eruption frequently comes out without any premonitory symptoms and is quite variable in appearance. It resembles in different individuals mild cases of either measles or scarlet fever and must be differentiated from both.

Ear Ache.—It is difficult in very young babies to determine whether the child is suffering from ear ache or not. Ear ache generally follows or accompanies a severe cold in the head, and is accompanied by a rise of temperature. If the baby cries at this time from pain and cannot be comforted by the usual means used to correct pain, a fairly good diagnosis of ear ache from inflammation of the middle ear may be made. Relief often comes to the infant by a discharge from the ear.

When it seems probable that the child is suffering from ear ache, a physician should be consulted. In the meantime, almost instant relief from pain can be given by using either salt bags or hot water bags applied to the side of the head. Nothing should be put into the ear unless by the physician's order, and if there be a discharge from the ear do not plug it with cotton. The ear should not be irrigated with any solution without medical advice. Dropping sweet oil, laudanum or paregoric into the ear is dangerous. One attack of ear ache is frequently the precursor of others, either during the same season or the next winter. It is often due to the fact that the child is run down in health.

Mumps.—Close contact is required to communicate mumps, which is an inflammatiaon of the salivary gland in the back part of the cheek. Infants are rarely affected. The period of incubation is from two to three weeks after contact. It is contagious from the beginning of the symptoms and can be given to other persons for several days after the symptoms have disappeared. Pain between the ear and the lower jaw, accompanied by a slight rise in the temperature, usually precede the swelling. Both sides of the face are generally affected, but the trouble may occur only on one side. The side of the face should be protected by a layer of cotton tied in place. Complications are very rare in children and infants. The child should be confined to the house if the symptoms are mild, and to the bed if they are severe. Frequently the pain is so bad that the child cannot eat. Under such circumstance, it may be necessary for the physician to given an opiate to stop the pain.

Chicken Pox.—This is one of the mildest of the contagious diseases of infancy or childhood. Rarely are there any complications. Infants under six months of age seldom have the disease. It occurs but once in a life time. The incubation period is from thirteen to seventeen days, and the duration of the disease is from eight to ten days. At the beginning of the eruptive stage there is generally a rise in temperature with a feeling of lassitude. The eruption begins first on the face or shoulders, and consists of a small, red, elevated area which may turn into a blister with an areola. Ordinarily a child need not be kept in bed. The danger of contagion is over after three weeks from the beginning of the eruption. Children should be kept from school for that time.

Whooping-Cough—Fully one-half of the cases of whooping-cough occur during the first two years of life, this being a time when the life force is very feeble, and when the digestive apparatus is more or less interfered with by changing of food, cutting of teeth, etc. The disease by lasting so long necessarily affects the infant unfavorably. It is much easier to treat in an

older child. The incubation period of whooping cough is seven to fourteen days. The disease usually comes on slowly, beginning with a cough, which lasts a few days, and which, after ten days or so, is accompanied by paroxysms. These paroxysms are associated with the typical whoop, which a mother can easily detect. The spasmodic stage usually lasts about a month. During this time the child will often vomit its food and frequently become quite weak. Fresh air seems to be a great tonic, and country air is always desirable. If the child lives in the city, the room and bedding should be frequently changed and aired. Tonics are often unnecessary. There should be no contact with other children while the paroxysms of coughing last.

Diphtheria.—Any inflammation in the throat should be looked upon with suspicion and whenever the baby is sick the throat should be examined. Grayish patches upon the tonsils may indicate diphtheria, and should be examined by the physician. A few hours' delay may take the child beyond help even though antitoxin is then given.

Since the introduction of antitoxin in the treatment of diphtheria. the mortality from this disease has been reduced tremendously. No treatment in modern times has proven of so much value; this fact should be known to all mothers, and there should be no hesitancy in prompt resource to this treatment. The earlier in the disease the antitoxin is given, the more favorable is the result. As a preventive, the antitoxin should be given to each child who has been exposed.

The danger of contagion is not over until several days after the membrane has entirely disappeared. The disease generally requires a close contact. Owing to the complications which may follow, the child should be under the care of a physician for a long time. Older children should be kept in bed for from one to three weeks following the disappearance of the membrane, the time depending upon the severity of the case.

Vaccination.—The effectiveness of vaccination in the prevention of smallpox cannot be doubted. Carefully compiled statistics have long since proven the fact of immunity conferred in this manner.

A healthy baby should be vaccinated some time between the eighth and sixteenth weeks following birth. It should be done before teething has commenced. Ordinarily mothers look too lightly upon such an operation, and the "scratch" is given no attention. As soon as the vaccination begins to take, the wound must be kept clean and protected. Wash the sore spot with absorbent cotton saturated in alcohol and water of equal parts, and keep it protected with a clean piece of soft linen. There will be fever and restlessness which will subside in twenty-four to forty-eight hours.

(To be Continued.)

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In view of the fact that the hay fever season is again upon us, the following treatment recommended by Hoffman might be worth trying:

Eight days before the date of habitual recurrence he recommends a dessertspoonful of the folowing solution three times a day.

Chloride of calcium	10 grm.
Lactate of calcium	10 grm.
Simple Syrup	40 c.cm.
Distilled water	400 c.cm.

Once fever has set in the patient takes a dessertspoonful every two hours till 40 or 50 grm. of calcium have been taken.

He claims that the calcium salts raise the vascular tonus and diminish the excitability of the vasodilators.—Interstate Medical Journal.

OPHTHALMOLOGY and OTO-LARYNGOLOGY

Conducted by
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SEVENTEENTH INTERNATIONAL CONGRESS OF MEDICINE

(Continued from Page 268 September Re·order)

OPHTHALMOLOGY.

GLAUCOMA.

CASEES IN WHICH THE VISION WAS PERCEPTION OF LIGHT ONLY.

Col. Elliott further stated: There were six of these; two failed; one in tension remained reduced, but vision failed; in three vision improved to recognition of hand movements; in two of the latter there was further improvement after extraction of cataracts

CASES IN WHICH THE VISION WAS PERCEPTION OF HAND MOVEMENTS.

In fourteen of these the patients returned at periods varying from seven months up to two years, the average period being well over sixteen months. In only two was failure recorded as the result of a fresh rise of tension, and in both it might have been averted, had the patient returned earlier. The group comprises fifty cases, in nine of which a very distinct improvement was recorded, the best results being two of 6-18, one of 6-24 and one of 6-36.

CASES IN WHICH THE VISION WAS REDUCED TO A FINGER COUNT.

This group comprises twenty-seven eyes, fifteen of which were seen from seven and a half months to nearly thirty-three months after operation; the average period being nearly twenty months. The best results in the cases when last seen, were 3-50 in one, 6-60 in four, 6-36 in two and 6-12 in one. In another case in this group vision one month after operation was 6-12 whilst in yet another, seen four months after operation, vision was 6-18 in one eye and 6-12 in the other. In five cases deterioration of vision continued, and was attributed to the progress of maturing cataracts. One patient left us in a satisfactory condition, and consulted a native charlatan who introduced irritant drugs into the eye and destroyed it thereby. The remaining cases just about hold their own.

The cases in this group had a vision ranging from 2-60 to 6-6. They were seen at periods varying from one month to over two years after operation, and included our most intelligent patients. They numbered forty-three in all, twenty-eight of whom remained the vision they had before operation or obtained better. In eight the vision deteriorated due to the development of a cataract. In four a diagnosis of the cause of a distinct degeneraton of vision was unfortunately not made. In one the deterioration was due to the development of synechiae, the result of quiet iritis. Fnally, in one case in which vision was 6-6 and in which a perfectly successful trephining was performed, the tension remained permanently lowered, but vision was abolished within two years; a dense cataract hid the fundus details but there seemed a strong presumption that a concomitant optic-atrophy had been responsible for the failure of the case. In one case the vision fell from 6-12 to 6-24 after operation and remained at that level. The patient was unfortunately lost sight of.

The outstanding feature of this group is that there was only one case in which the tension rose above normal subse-

quent to the operation. In this instance the rise was to 30 mm. of mercury, but at the same time vison improved from 6-36 to 6-9. In all the rest a normal tension was maintained.

If the reader should justly estimate the significance of the results which have been laid before him, he must bear in mind that they are not derived from the operative practice of one man. In the Government Ophthalmic Hospital, Madras, an effort has been made to educate others in the technique of the operation. Nearly thirty surgeons have availed themselves of this opportunity, and in estimating results we have included all returned cases, absolutely regardless of the identity of the original operator. It is also to be remembered that we have in no way picked our cases; every single eye in which it appeared that advantage might be obtained from trephining has been submitted to operation regardless of the effect on statistics of such a course of action; lastly we were especially in the early stages, feeling our way. Many questions, such as the site for trephining, the diameter of the trephine to be used, the treatment of the iris, etc., had all to be found out. The surgeon who commences trephining now, should be able to avoid many of the pitfalls which beset us in our earlier work, and his results should show corresponding improvement.

There is one last point to consider. The suggestion has been thrown out that such marked lowering of tension as trephining often produces, and occasionally makes permanent, may lead to perversions of nutrition leading to loss of vision. We have been fortunate enough to have amongst our patients a few who have co-operated with us by submitting themselves to a thorough periodic examination. Four of these have been under observation for periods varying from one year and ten months to two years and four months (at the time of writing), and not one of them has revealed any abnormality. The belief that such perversions would occur is, we believe, founded on no sound arguments; and is negatived by our experience.

PRIESTLEY SMITH'S CONCLUSION.

Prof. Smith delivered a paper on the same subject and gave the following conclusions.

One who is no longer an operator must not dogmatize on operative treatment. I venture, however, to submit a few conclusions. The operative treatment of glaucoma has undergone more improvement during the last five years than during the previous fifty. The improvement relates chiefly to the treatment of chronic glaucoma. It has come through recognition of the fact that chronic glaucoma can be arrested only by establishing a subconjunctival fistula or filtering cicatrix in connection with the aqueous chamber.

Further experience will doubtless bring further change of practice—has done so since the present report was written but it is unlikely that any one method will ultimately exclude all others. On the contrary, it is likely that better knowledge of causation will lead to a discriminating choice of different methods for different forms and stages of glaucoma.

The time-honored iridectomy, though now to some extent replaced by other methods, especially by trephining, is far from being obsolete. Modified in various ways it still stands first in favor for acute glaucoma.

In chronic glaucoma a permanent lowering of tension can sometimes be effected without excising any portion of the iris, but the attempt involves unnecessary risk. For every form of glaucoma the most trustworthy operation will probably always include the making of an aperture in the iris corresponding in position with the incision in the tunics.

Improvements in the operative treatment of glaucoma, however great, can never dim the lustre of von Graefe's great achievement. He cured a disastrous malady that had never been cured before.

OPTICIANS WISH TO USE DRUGS.

The following extract from an article in a late issue of the Optical Journal and Review indicates the object which some of the opticians have in view.

According to this article opticians should be permitted to use drugs to a limited extent in their work.

The contributor says:

"If things should ever change from their present condition, so that future optometrists can use drugs to a limited extent in their work, it will not be entirely revolutionary in character, for though some of our optometrists who are also logicians (may be pseudo logicians) say that a dentist, or a chiropodist, does not practice medicine, just because he is not an old family doctor, nevertheless, they are in error, for both of these two classes of professionals do practice medicine to a limited degree."

"The sphere of the dentist is to clean, extract and repair living teeth, and to replace them with artificial ones when he either thinks this is necessary, or wants some experience or needs the money. Within the limits of his sphere he may use drugs, and powerful and dangerous ones, and just to what point he shall go in the use of these drugs is well understood by him and his medical friend, old Doctor Bones. So far as he does go he is practicing medicine."

"There is no use in trying to get away from so striking a fact. To say that he does not practice medicine at all is to make a statement that is not in accordance with the facts. Simply because he has a diploma and practices as a dentist doesn't change the fundamental fact that when he uses a drug he is practicing medicine. He has a right to practice medicine to a restricted degree and for one special purpose, viz.: in the preparation of teeth, or the nerves of teeth, for his later and main work, the cleaning, extracting, repairing and replacing of human teeth. I have no doubt that he could also, if he liked, tackle animals teeth."

"The chiropodist occupies a humbler sphere, but he practices medicine in a similarly restricted way. He works at the other extremity of human beings. He removes those excrescences which are so unhappy in tight fitting shoes. I don't know practically much about his work, for I wear shoes of the type that Horace Greeley announced long ago as perfect fitting—just loose enough so the hand can be inserted beneath the leather and the folds in the home-knitted socks underneath smoothed out. Perhaps the chiropodist aiso removes warts. Anyway, the meaning of the word is one who treats the hands and feet. I haven't read the law governing chiropodists, but I know they apply drugs in many cases to corns before they remove them, and I never heard of any medical society trying to stop them, and, anyhow, they certainly practice surgery, again to a limited degree."

"Our competitors, the oculists, announce at frequent intervals, "if you want to practice 'medicine' go to a medical school in the regular way, and then you can fit glasses, or practice any other branch of our 'science' you wish." And yet, if the New York authorities are correctly reported, they favor a future profession of optometry in which there will be a limited practice of medicine."

"There is no more call for future optometrists to pass a preliminary four

years in a pill and bones school than there is for dentists and chiropodists. These latter have already set a precedent for a limited practice of medicine and the time may come when these precedents will be used in the formation of 'medical optometrists,' or whatever the new name may be. To demand four years in a medical school sounds well in print to those who mouth it, but if the change ever comes this four years will dwindle to a much smaller period of time—again consider the dentists.''

MISCELLANEOUS

THE SOCIAL EVIL.

By D. D. Rose, M. D., Valparaiso, Ind.

In the recent past there have appeared many articles, both in the professional and secular journals, on the above subject. The endeavor has been to analyze the cause and devise a cure. As this subject comes so continuously in contact with the profession, I write this article for the ''Record.'' Some writers have analyzed one cause, some another. None may be wholly wrong, yet neither are they entirely right. Each has undoubtedly written or spoken according to his observation or experience. Many seem to believe that the ''social evil,'' so called, is mostly due to the low wages paid to women and girls for their labor, and to the high cost of living. If such writers would observe more closely and inquire more particularly they would undoubtedly be convinced that they have taken the wrong premises. In the agitation for higher wages and ''votes for women,'' before we had heard of ''the high cost of living,'' prostitution was more prevalent than at the present. ''The wealth of Corinth proceeded largely from the foul hive of prostitution in the temples.''

As a medical student in Chicago, and later in practice in the same city, it became necessary to form the acquaintances of many of these women. Many of them were beautiful and intelligent and some were well educated. As their confidence was gained some of the more intelligent ones were asked: Why they had entered upon; and why they were pursuing such a life. Of course the replies were as various as the number of people. With the majority of the less intelligent the trend for a reason was that they had begun such a career because they liked it; liked its gaities, its fine clothes, its ribbons, with no scrubbing or dishwashing to do. A large per cent of the more intelligent had been betrayed by a supposed friend. Some were graduates and sent to such a place from a ''Maternity Hospital.'' Two were started on their career through lascivious questions and insinuations of the ''confessional.'' Others felt that they had been driven to such a life by constant nagging or not being appreciated at home. But not one gave as a reason for entering upon such a career that she was underpaid, or low wages. Underlying all this was the fact that their mothers had never taken them into their confidence and tried to teach them the things they ought to learn of themselves; but, rather let them drift in the company of older, vicious girls at a critical time when they most need the gentle, loving advice of a true friend. In at least seventy per cent of the cases the fault is in the environments of the home.

Some assert that most women are

sexually indifferent, cold and therefore are not subject to temptations except for a consideration. That conclusion will be found to be incorrect if properly investigated. Of course there are extremes at either limit. For instance, there was a refined, intelligent lady, a church worker, known throughout the country, who told me that in trying to control herself she took bromides and other medicines until her stomach was nearly ruined. Finally concluded to pursue a course least ruinous to her health. Another case: At a refined home one evening a young lady of the family had a prolonged spell of weeping and refused to be comforted. Later, after she was married, she confessed to me that the cause of that weeping was because of a fierce, unsatisfied desire for copulation. Such cases need sympathy, not censure and blame.

I was called to attend a school girl, sixteen years of age, in confinement. She had been sent there from another town. She had been cast off by her parents, and deserted by all who should have loved, pitied and protected her. I was left alone with her during her confinement. She told me her story. Said that for three years she had been meeting secretly with about a dozen others of the high school boys and girls, in ages of thirteen to eighteen years, for the purpose of promiscuous sexual indulgences. They would meet by appointment about once a week at any place where they seemed the least liable to detection.—sometimes in their own homes. The result was that three of them became pregnant and several became public prostitutes. They were but children who knew they were doing wrong but did not realize the enormity of their crime; nor its inevitable results. The whole fault lies with the parents and the sentiment of the general public. A mother who permits her daughter to become a prostitute in that way commits a sin for which all the prayers of her life will not atone. And the father who does not endeavor to direct his own son right in such matters is just as guilty. The family physician through proper advice and instruction, can and should do much to eliminate this evil.

Society ladies have and do publicly seek and cultivate the company of know libertines while they despise and shun the company of a prostitute of their own sex. When public sentiment can be taught to realize that there should be but a single moral standard for men and women, that to be a male prostitute is as degrading as to be a female prostitute, that when they cohabit together each is on the lowest moral level of either "without regard to race, color or previous condition of servitude," then the "social evil" may be eliminated. The reform must be in the homes and the proper teaching in the families and schools. Don't be discouraged. The world is becoming morally better each generation.

Don't uphold and condone such an irreligious libertine as Stanford White nor condemn Harry K. Thaw for shooting the brute. D. D. R.

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STUDY YOUR INDIVIDUAL PATIENTS.

Never forget that one of the essentials to success in the practice of medicine is the study of each patient that presents himself for treatment. Never attempt to treat names. A large number of drugs may be used for a difficulty that is classified under a name. A half dozen or more cases of bronchitis, pneumonia or typhoid fever may each require a different treatment as far as the drugs given are concerned.

GETTING PEOPLE TO SUBMIT TO HYPODERMIC MEDICATION.

By J. A. Burnett, M. D., Hartshorne, Okla.

Many of the laity do not understand the superiority of hypodermic medication over all other forms of medication in some cases. It is often puzzling to approach or get some patients to submit to what you know is best. I was licensed to practice medicine Dec. 16, 1902, and have had quite a little experience in various diseases and among many classes of people I have found it is often harder to control cranky, superstitious and ignorant people than to control their disease.

Recently I asked an authority how was the best way to get people to submit to hypodermic injections and received the following reply:

"We find it impossible to reply satisfactorily to your query as to the best manner in which to persuade persons to submit to hypodermic treatment. You will readily appreciate the fact that this depends much upon the individual, the community in which he lives and his objection to such treatment. For this reason we believe that every person is a law unto himself and will simply require educating by his family attendant."

I consider this a good reply as I know most people must be educated as to what is best. It is impossible for me to mention all the advantages of hypodermic medication over other forms in many cases. When a drug is injected hypodermically it is at once in the circulation and we are sure to get full effect.

In many cases the action of the stomach is suspended or almost so, hence taking medicine by mouth in such cases gives no results. Even the laity know that at times the stomach will not digest the most common food Almost any old lady has seen children vomit sweet milk in a few minutes after it was swallowed and it would be curdled so hard as to almost choke the patient as it came out. The second year I practiced I had a case, a two year old child that I gave very small tablets and they passed through whole. Everyone almost has seen food pass through a sick patient without being digested.

So if food that has been taken in liquid form or chewed will pass through without being digested it is reasonable to suppose that medicine in any form when given by mouth can pass through without being absorbed.

There have been many patients died when the proper drug was being given by mouth that could have been saved if it had been used by hypodermic injection for reasons just explained. As a hypodermic injection is only injecting medicine just under the skin I see no reason why it should scare some people like it does.

I have often seen people leave the house when one of the family was about to receive a hypodermic injection. A child will not fight any more against a hypodermic injection than from taking a bad tasting medicine. The public should be educated to the value of hypodermic medication as all the time this form of medication is growing more popular with leaders in the medical profession.

There are many remedies as vaccines, serums, biological products, etc., that are not even used any other way only by hypodermic injection.

The leading medical men that are well known in hospitals in the large cities do not have this particular trouble in using remedies hypodermically as the physicians in smaller places. My plan with many people is often something like this. I will say, what you want is to get well or be benefited as much as possible or in other words what you want is to get

the best treatment. I know is it. If the answer is yes I will tell them that hypodermic treatment is needed. If they object I can assure them that they will not get the best treatment and must have no "kick" about their progress or relief as they are doing a part of the practice . I never urge hypodermic treatment on any one or any other form of treatment.

I always suggest what I think best and see if it is agreeable and in case a patient should disagree too much with my suggestion then I refuse to treat the case. Some physicians who read this may think I have a very peculiar class to deal with and to such I will say I have.

I have had patients tell me that they did not want to take quinine or a purgative, refuse hypodermics as well as other fool things too numerous to mention.

SEASONABLE HINTS FOR THE X-RAY MAN.

The cold weather is approaching. Remember that your developer works much slower when it is cold than at normal temperature of 60 to 70 degrees. Use your thermometer, and, if necessary, warm the trays and developer.

In cold weather be careful of your tubes. Do not expose a heated tube to a draft of cold air, and do not heat a cold tube up too quickly.

Care of Plates. Plates should be stored in their original boxes and stood on edge. Plates in use around the X-ray room should always be stored in lead-lined boxes, both before and after exposure to prevent fog. Many operators do not realilze that an ordinary lath and plaster partition is not X-ray proof, and are getting fog which they cannot trace. A lead-lined box is not expensive and may improve your work.

Fluoroscopic Work. Remember that it takes from five to ten minutes for the pupil of the eye to expand. Do not expect to get a good fluoroscopic image on first entering the dark room. A very good method of testing the sensitiveness of the eye is by means of a spinthariscope. When the radium scintillations are plainly visible, the eye is at its best. This instrument is small and can be readily carried in the pocket.

Size of Tube. The 7-inch tube is better than the 6-inch for most work, because the larger tube has more air space and the terminals are further away from the glass. The target heats first, then the heat is transmitted to the glass wall of the tube, and when this wall becomes heated, the vacuum is lowered. It can be considered that the wall of a tube is covered with minute bubbles of air which are attached to the glass more or less securely. When the glass wall becomes heated, the bubbles, some of them, are detached, which causes the lowering of the vacuum. There is no advantage in a tremendously large tube because it is unwieldy, and to compensate for the extra air pressure, the glass has to be very thick, obstructing the rays. The 7-inch tube is the best all-around size.

To render a packing introduced for epistaxis easily removable insert a rubber finger cot into the nose, hold it open with clamps and pack the gauze into this.

When bismuth paste is used in any considerable quantity (an ounce or more) for x-ray diagnosis it should be promptly washed out of the wound with olive oil, to avoid poisoning.

The Wisconsin
Medical Recorder

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PUBLISHED BY
WISCONSIN MEDICAL RECORDER
JANESVILLE, WIS.

SUBSCRIPTION PRICE

$1.00 per Year in Advance; Single Copies 10c in the United States and Mexico.
$1.25 per Year in Canada.
$1.50 per Year in Foreign Countries in the Postal Union.

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VOL. 16 OCTOBER, 1913 No. 10

MEDICAL SOCIETIES.

I often wonder if all members of the profession appreciate just how much benefit may be derived from being a member of the County Medical Society? In the first place by being a member of your County Medical Society you at once obtain a standing in your community, attained in no other way, because before one can become a member his credentials have to be approved. Another point is that once being a member of your County Society you are made a member of your State Medical Society, and are entitled to attend all its meetings and derive the many benefits that such a membership entitles one to, and not the least among these benefits is that of Medical Defense. There is no question in my mind as to the benefit derived from meeting together of the differnt physicians of the county and listening to good live papers, whether these papers are prepared by the local men or whether they are given by some man from a nearby city makes no difference. The point is that at such a time we hear a good paper on some one or more subjects, and it is an incentive to us to keep up on reading along these different lines. It was my privilege this last month to attend the State Medical Society meeting and to be present at the meeting of the County Secretaries. I found out that during the last year many Counties had held their first meetings, some monthly, some every three months and some only twice during the year. The number of meetings seemed to depend on the number of members of the County Society and again on the territory covered by the county. Some counties had but two meetings and those very successful ones, if they had held more the attendance would have been small. Some societies had their meetings only during the three summer months, and these were in the nature of picnics, the physicians brought their wives and families and they had some one speaker from away, a man noted for some special thing, and they found this to be a very successful plan to bring the men out, as they were not only able to enjoy a day's outing but were also able to hear a good live paper by an authority.

If you have not tried the plan of having outside speakers at your County meetings, try it this coming year. You will be surprised how willing our biggest men in medicine are to come and give you a paper at almost any time. This last year we have adopted this plan in our local society and the meetings have been most successful, besides the speaker of the evening two or three of our local men have been on each program, so there has been no chance for their interest to lag.

The main point is, if you are not a member of your County Society become one at once, and if your county has no County Society make a name for yourself by organizing one.

ABSTRACTS

FUNCTIONAL KIDNEY TEST.

M. Fishbein, Chicago (Journal A. M. A., October 11) advocates the use of the phenolsulphonephthalein test of the functional ability of the kidney which has been made on many hundred cases and in over forty, at least, post-mortem examinations have confirmed the presence of conditions suggested by the test results. A number of cases are reported with tabulated results in scarlet fever cases. He says there seems to be a general lowering of the renal function in the later stages of scarlet fever. The tests were made by intra-muscular injections of the agent and in nearly all the uncomplicated cases examined from the third to the fifth week of the disease. An average total output of 55 per cent of the drug excreted in the urine was seen as compared with the normal 65 to 85 per cent. In three cases of acute nephritis an increased output was observd in two and a lowerd output in one . In several instances in which headache and nausea occurred without albumin in the urine, a test showed decreased function of the kidney. Its practical value is apparent.

TUBERCULOUS JOINTS.

L. W. Ely, Denver, Journal A. M. A., October 18), traces the employment of injections of tuberculous joints back to Mikulicz in 1881, who used iodoform, which has been the substance most persistently advocated by those who recommend this treatment. Many other substances, however, have been used, such as iodin, phenol, formaldehyd, etc. He has gone over the literature of the uses of iodoform critically and says if we examine the evidence for iodoform, after thirty-two years of trial, we find it consists almost exclusively of unsupported clinical opinion. While this does not necessarily condemn it, if we find, as he claims, an approximately equal weight of unfavorable clinical opinion, we should choose some other method of treatment. Iodoform, he says, is not widely used in this country at present except by those who possess an extreme reverence for foreign authority. The claims for the other substances are just about as well supported. They are at first vigorously advocated and then abandoned. Formaldehyd is at present still being tried. Ely says it is as rational to attempt cure of tuberculous joints by injections as it would be to attempt to cure the disease in the lung by injecting the pleura. He thinks we should simply attempt to aid nature in its reaction against the presence of the tubercle germ and discounts the ability of any substance injected into a joint to destroy the infection.

RELIEF OF FAINTING.

A. A. Hawkins, Pittsburg (Journal A. M. A., October 11), mentions a procedure which he first observed in St. Peter's Hospital, London, in 1899. It was the custom of the surgeons then to pass bougies and sounds with the patient standing and occasionally one would faint. In that case he was seated in a vacant chair by the surgeon and his head was pressed down between his knees, thus retarding the return circulation and relieving the brain anemia. A minute in this position was sufficient. It renders the horizontal position unnecessary.

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Find your purpose and fling your life into it; and the loftier your purpose is, the more sure you will be to make the world richer with every enrichment of yourself.—Phillip Brooks.

THE DOCTOR'S LIBRARY

HISTOLOGY. Vol. I. and Vol. II. A Guide for Practical Instruction in Histology and Microscopic Anatomy. By Rudolph Krause, A. O. Professor of Anatomy at the University of Berlin. Translated from the German by Philip J. R. Schmahl, M. D., New York. Cloth. With 300 illustrations in text and 208 colored pictures arranged on 98 plates after the original drawings by the author. New York, Rebman Company, 1913. Price Vol. I, 75 cents; Vol. II, $5.50.

The first volume is of the greatest value to every laboratory student. It first takes up the microscope describing all its parts and how to use the same and then gives some rules for the use of the microscope.

The second division of the work deals with the General Microtechnique, The Method of Preservation, The Method of Making Sections, The Method of Staining. One can find in this section the most improved methods of preserving specimens, making sections and the staining of the same, and describing the stains used.

The later third of the book contains the appendix to the Methods of Staining, The Impregnation Method, Methods of Injection, Mounting and Finishing and Mensuration and Drawing.

This is a most exhaustive little work complete in itself, and one which every student can well afford to possess, particularly if he is doing laboratory work.

Volume two has to do with Histology proper. The Histology is taken up under three divisions. I. The Cell. II. The Tissues of the Animal Body, and III., Organs. The Histological study of Animal Tissues as well as that of man, is taken up, and in somewhat different manner than is usually found. For instance take the article on the Human Kidney—first you are told what part of the tissue to take, how to fix the tissue, cut sections of and stain the same. Then under headings "A" Distribution of Cutical and Medullary Substances and "b" Glandular Structures of the Kidney the structure of the Kidney is discussed. Each subject is taken up in the same way—and each subject is illustrated.

The author believes that the study of Histology should go hand in hand with that of Anatomy and his work bears out his belief. All in all this is the most comprehensive work on Histology that I know of, and one everyone should possess.

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INTERNATIONAL CLINICS. Vol. III. Twenty-Third Series. Cloth. Price $2.50. Philadelphia and London. J. P. Lippincott Company.

The editor of the International Clinics is to be congratulated on the subject matter of the present volume, for all the different articles are of particular interest to the general practitioner, as well as being written by authorities on the different subjects discussed. Each year "The Clinics" are obtaining a stronger hold among the physicians for they bring to him the best articles on good live subjects, and thus he is saved the trouble of hunting for the same through numerous medical journals.

Some of the subjects of articles appearing in Vol. III. are: "On the Treatment of Pneumonia," "Treatment of Diseases of the Heart," "Treatment of Acute Peritonitis," "Anemic from a Surgical Standpoint" and many equally interesting ones.

Wisconsin Medical Recorder

A Monthly Journal of Medicine and Surgery, devoted to the best interests of the profession

VOL. XVI NOVEMBER, 1913 No. 11

TOXEMIA IN PNEUMONIA and Other DISEASES

G. G. BURDICK, M. D. and THEODORE C. F. ABEL, M. D., Chicago

We do not mean to imply that the peculiar clinical phenomena known as pneumonia are not caused by bacteria, such as Frankel's pneumococcus or the Friedlander bacillus, but we do maintain that clinically no case is found that does not show a high grade of putrefaction in the bowels and that without the absorption of these toxic poisons the necessary congestion of the mucous membrane of the lungs could not take place. Therefore the bacteria could not find a favorable soil to develop in.

As a general rule we will find pneumonia only among a class of people who are usually well fed; in fact, among those people who not only drink too many alcoholic beverages, but who habitually overeat of nitrogen-bearing foods. The wastes of these foods, over and above the amount required by the body, are attacked by mico-organisms and undergo an actual putrefaction, producing many virulent poisons from the activity of the different flora in the intestinal canal.

The Factor of Exposure in Pneumonia. The history of many cases of pneumonia gives exposure as a factor, and unquestionably it has a marked influence, but not in the way that is usually accepted by physicians. A suddne chilling of the surface of the body drives the blood to the interior. The great omental vessels are engorged with blood, with the result that an immense amount of absorption takes place, so much in fact that the liver is unable to destroy the poisons as fast as they are absorbed. Great quantities escape into the circulation and endeavor to escape through the emunctories, as the kidneys, bowels and lungs. The mucous surface of the lungs and kidneys are irritated and become edematous, and we have the symptoms of so-called cold; metabolism is disturbed and waste retained, while the so-called vital resistance is generally lowered. This brings about a condition favorable to the development of the specific bacteria and we have a well developed case of pneumonia in our patient.

Pneumonia for many years gave me much concern, but its management has become so simple, when the proper physiologic measures are adopted, that I no longer fear. Since I have adopted this treatment of this condition it has proved very simple, as will be shown hereafter, when we consider the condition in detail.

Over-eating as a Cause for Disease. One of the most vicious habits is that of over-eating. The digestive organs are not only over-loaded and overworked, but much food remains that has not been assimilated, or digested, so that a certain amount of putrefaction and fermentation of waste ensues.

This gives rise to some of the different forms of dyspepsia, until the functions of the stomach are impaired and various by-products are formed. Acrid acids irritate the pylorus and stimulate it to an active spasm; gas accumulates,gradually distending the stomach, while the pneumogastric nerve, irritated by the end-products of fermentation, losses control and we have a dilated stomach. If the process is continued sufficiently long the stomach may settle down upon the pubes together with the rest of he abdominal contents and a condition called ptosis of the abdomen takes place.

Ptosis of the Abdomen. This condition, which is due to errors of living, and is the result of an unbalanced diet, in the course of a very few years puts the patient into a condition of abject misery, if allowed to continue. The great majority of these people are simply toxic and under a careful regime will recover. As a general rule the prolapse of the stomach is so great that it is rarely found empty, while the retained contents are breeding grounds for various saphophytic bacteria, yeasts, moulds, etc. This results in the production of alcohol, methane, carbonic acid gas, hydrogen sulphate and various kinds of acids. Under exceptional conditions, alkaloids, resembling leucomaines, and ptomaines are produced in large quantities. Usually, hydrochloric acid is not formed, owing to the active inflammation of the cells that produce it. If the condition is not recognized early, the acid cells may be hopelessly destroyed. Apparently the peptic glands resist this condition better than the acid glands, for some unknown reason. Yet I have found cases where neither secretion could be found during the early part of the illness, while both the ferment and acid glands may be over-active later. This shows the stupendous folly of giving so many so-called digestive mixtures to correct the condition present. Rather should the emergency be met by rest, gentle massage of the abdominal contents, washing the stomach clean once a day, and giving only cereals, sugars and vegetables, well masticated, as a source of energy. Care should be taken not to give more than can be assimilated, so as not to leave any fermentable substances to supply food for micro-organisms. All native albumins should be excluded rigidly from the diet. The fear of under-feeding the patient is a fallacy, as assimilation rapidly increases as soon as the toxemia is relieved.

Biliousness. Under this generic name much of our ignorance of actual conditions has been hidden away in the past. In some way we have directly surmised that the liver was offending in some unknown way, and much pharmaceutical nonsense has been aimed at this much abused organ, in the hope of either shaming or whipping it into doing its duty.

It can be stated without fear of successful contradiction that the liver can be depended upon to do its duty far better than its owner. And farther, that no case of liver insufficiency will ever occur where it is not chargeable directly to the individual that possesses it.

The clinical symptoms of biliousness are those of a profound autotoxemia, due solely to an unbalanced diet, with defective elmination and lack of physical exercise. In these conditions, active putrefaction of intestinal waste takes place, with the absorption of an immense amount of putrefactive toxins. These poisons are destroyed under ordinary conditions, as rapidly as formed, by the liver, as has been demonstrated by the experimental data gathered by injecting toxic substances into the portal vein. When they are absorbed in such large quantities that the liver fails to destroy them, a very complex condition of affairs has been brought about Analysis shows that an

alkalin starvation exists, also that an immense amount of putrefaction exists in the bowel, and that the condition with its disagreeable symptoms called biliousness is rather a life-saving measure than an attempt to annoy the patient. The stinking breath, coated tongue, malaise, anorexia and vague aching from overburdened nerves, will at least have one marked effect. The patients will quit stuffing themselves and give nature a fair chance to establish a fair balance before they again are allowed to resume their usual practice of converting their stomach and intestines into a garbage dump.

The toxins absorbed in these conditions are far-reaching in their effects, and practically all the internal glands suffer from their presence. Not infrequently the thyroid and adrenal glands are markedly stimulated and we get a high blood tension. A high fever with a marked acidemia and considerable nitrogen waste from over-oxidation are also present.

This condition calls for intelligent treatment. Repeated evacuation by an enema, catharsis, followed by some mild intestinal antiseptic or absorbent, like charcoal, to prevent absorption by the circulation; salol, thymol or naphthalene, all of which prevent excessive bacterial activity, and last but not least a supply of alkali. The latter is to be given at first in large doses, gradually curtailed each day as improvement takes place.

The diet should be confined to sugar and cereals. The time-honored chicken soups and nitrogen extracts have killed more people in this condition than have died in the battles of the world. Albumin derivatives given in a condition of alkali starvation, with an under-active liver, are converted into various by-products that irritates the kidneys, and add insufficiency to these organs as well. This is a serious conditions, as emunctories are usually working overtime trying to eliminate the material from the natural body loss.

One of the most important parts of the treatment should be the regulation of the intake of water. The amount can usually be calculated for normal people, according to weight, but as a physician who has no facilities for uranalysis cannot positively know just what proportion of waste the kidneys are eliminating, it is well, temporarily, to add at least one-half more than the normal requirement until the patient is convalescent. If oxidation is overactive, we may hydrolize the tissues and lose more than the normal amount of waste. And in this case our patient will lose weight, something that should be carefully guarded against, as we get a tremendous loss of energy from the lack of the necessary chemicals to carry on metabolism.

The Fuel Vanlue of Foods in Sickness. Somehow it seems to me that our profession has not used as much judgment in treating invalids as they should, and it is probably due to the general misinformation abroad, and is also a result of too many text books that have copied mistakes of the past. It has also seemed a queer thing to me that my medical friends were so fond of the so-called stimulating and nourishing foods, which usually means some nitrogen extract containing amino-acids in a concentrated form. The complex digestive processes required to assimilate these foods are usually beyond the capacity of the average patient.and when they are taken we have a high fever, a drier tongue and more profound toxic effect on the nervous system, resulting many times in delirium or a brain fag, because these foods require so much alkali in order to be properly elminated that a chemlica starvation results.

This is artificial, owing to the enormous demands of the over-burdened metabolism for alkali, when the liver is not functionating, owing to the in-

sufficiency brought about by the toxemia present.

In carbohydrate foods, on the other hand, we have a clean fuel, easily converted into glucose, and in moderate quantities hydrolyzed into glycogen, even by an enfeebled liver. The waste is rarely dangerous and is simply carbon dioxide and water, one getting out by way of the lungs and the performing a useful function in carrying out waste by the kidneys.

Carbohydrate foods are only dangerous when not inverted properly, and when they are allowed to accumulate in a dilated stomach, where under certain circumstances methane gas may be produced. This may cause a wild delirium, which is very puzzling to both physician and family of the patient. In these cases we must depend on a solution of sugar, preferably glucose, levulose or maltose, as our source of energy. I have found these sufficient over long periods of time. I have rarely found them to disagree if given with the proper amount of alkali, and if given in hot water they are usually assimilated in a very few minutes, leaving the stomach empty. As the digestion improves, purees of the various vegetables with some sugar and alkalies will be taken gratefully and assimilated. These may be followed later with cereals.

It is evident that many good physicians are fearful that a patient will be underfed. Regard for the actual expenditure of energy required should always be considered in each case, and some fundamental facts should always be considered. Nature usually will accept any available fuel, preferably to destroying its cellular elements as a source of oxidation, and will take and use sugars with avidity if they are available to the hour of need, and we conserve our vital resources by supplying them in moderate but sufficient quantities, as required during the course of an illness. However, fuel is not the sole need of the body during the time of stress, owing to the fact than an immense amount of waste is accumulating, the result of increased oxidation. Usually in a severe fever, twice the normal amount of waste is present that we find in health. Therefore, the greatest of important needs is water, in about twice the amount required in health, in order that we may work the kidneys at the least stress and strain.

This will dilute the toxins that result from absorption, and eliminate the waste in a condition less likely to harm the kidneys, and it has the great advantage of removing waste as soon as produced, and freeing the harassed metabolism from their presence.

The Chemical Balance. Many thousands of analysis made on 24-hour specimens of urine and computed on an age, weight and kilogram basis, shows a remarkable chemical balance, present in all healthy people, and equally remarkable fact that in sickness a disturbance of this balance takes place. We have found that the greater the variation present, the more profound the clinical symptoms that accompany it.

In not one case have we found this balance seriously disturbed, but that evidence of some variation from the normal could be found on physical examination. In fact, so much were we impressed by this remarkable fact, that our efforts in late years have been devoted in all clinical cases to maintain this balance by artificial means at all hazards, by applying the necessary salts until the condition can be maintained by diet. This procedure has paid such good dividends on our investment of time that it is now regarded as a necessary routine in all clinical cases regardless of their origin.

The results have been so remarkable that we have extended the method to the blood! not discharging a patient as

cured until a certain relation of blood count is obtained.

It has done much to simplify the treatment of chronic diseases as it has allowed us to break away from traditions and pursue a well-illuminated path all the way, which is lighted by laboratory findings. This method is easily acquired by any conscientious physician who is willing to work and give us enough definite data, not only to tell the patient what is wrong but why it is wrong, and show him the right road to travel in order to regain his health. The cheerful co-operation of our people as they watch the steady improvement taking place, week by week, as they are gradually brought back to their chemical balance is remarkable. They take just as much interest as a physician in the process, and express their pleasure and appreciation as their clinical sympoms subside gradually as they approach the normal, or when they were told they would be well and likely to remain so, as long as they gave the proper thought to their diet and new-formed habits. When we consider that marked variation of the chemical balance over long periods of time will produce chronic diseases, we must not forget this condition is acute disease, where an enormous fluctuation may take place in a few hours and a positive chemical starvation ensue in forty-eight hours, because all available elements have been used in emergency that has suddenly confronted metabolism. In order to get the necessary material to work with, various structures of the body are called upon to give up the material needed, so that under the ordinary system of treatment much loss of weight ensues. Under our method of maintaining the chemical balance, we use all available means of supplying the required material in abundant quantities, together with the energy equivalent of the amount of actual work done in oxidation, as determined by the output of solids in twenty-four hours. We have so simplified the clinical syndrome of acute disease that the actual loss is a very small item, and no case of emaciation has been noted exclusive of acute miliary tuberculosis. The remarkable mental attitude has impressed us very much. The mind remains clear and vigorous and a constant desire to mimimize the trouble has been noted. They seem more concerned about when they will be allowed to eat, rather than about the disease. It has been hard to convince some people that they really had a bad attack of typhoid fever and that caution was necessary to avoid excess eating. Another remarkable feature is the moist tongue and clear eye, without the odor from bowels or breath. No sordes is noted upon the teeth, no delirium, moist skin, and a very much lower run of temperature. The contrast between patients treated the old way in the same house is very remarkable.

This we have carried out several times to satisfy our minds regarding the efficiency of this method, the worst case being selected for the new method, and in each case the demand of the family made us change to the new method. The contrast was so vivid that even the layman could see the advantage.

Intestinal Toxins. These remarkable bodies have been known to the profession for many years, yet curiously enough their significance has been little understood. I am afraid in too many cases their presence has been absolutely ignored.

They exist in great variety and are formed by the putrefaction of various kinds of albuminous waste by the existing bacterial flora of the colon, and it is only a laboratory man who has laboriously plated out the flora from a bowel that has been made as clean as catharsis, enemas, antisepis, and a clean diet can make it for several weeks, can get a clear idea of the re-

markable number and variety of micro-organisms that may be present Only by studying their chemical characterization and their action in putrefying different albumins under aerobic and anaerobic conditions, and by extracting the toxins and studying their effect on animals, can we get a clear idea of what a situation the clinician is confronted with who strikes blindly at the problem, with calomel, salts, etc., in the hope of cleaning up an obscure condition which he dimly recognizes as a factor in the clinical problem.

It is also instructive to go into the dead-house and see so many colons filled with adhesive putty-like substance, all the way from one-sixteenth to five-eighths of an inch thick, leaving a clear way for the cathartic through the center, while not a point of the bowel is exposed down to the sigmoid flexure, and when we stop to realize that some of these people had had a thorough hospital service preparing them for an operation, we can see how much trouble the ordinary clinician would have in this problem.

It is in this class of cases that the laboratory is useful and we have no trouble in determining the actual condition of the bowel, first by the kind and character of the extractive in the urine, and after their elimination by proper hygienic means and a proper diet, by a chemical and microscopical examination of stools. This will show blodo, mucus, shreds, amoebae, eggs of parasites, indol, ferments, etc. Then by plating out the stools we learn the character of the flora, their chemical and biological characteristics.

We will find that as a general rule, the more active the microbic life, from a chemical standpoint, the less pathogenic. And in fact we must base our clinical efforts to improve conditions on the fact that the more familiar we become with microbic life, the more we begin to realize that they are influenced by the same general laws that control the higher order of life. They all thrive best in a perfect environment, with the proper food and moisture. Just as soon as the conditions are changed, they may live, but will no longer thrive, and gradually must die for want of food and conditions suitable for their continued existence.

Antiseptics and Germicides. For internal disinfection no more unholy delusion has ever seized the medical profession than the idea that a condition of asepsis of the intestinal canal can be brought about by the use of intestiinal antiseptics. They are not even reasonably efficient, and extensive experimenting by using all of their class has been found only bitterly disappointing. We have no means at command at present that will make the bowel reasonably clean, except washing daily, the adoption of a clean diet, and with occasional catharsis of castor oil. And in order to be efficient these procedures must be carried out for a long period of time. Eventually a time will be reached when micro-organisms that live and thrive on nitrogen extractives will have disappeared because of lack of food. They are unable to resist the condition of a constant flood of enemas which remove them in such numbers that they can never multiply fast enough to become a menace to their host, a condition that cannot be approached by the use of any kind of a cathartic.

Constipation. This condition is due to many causes, but principally to errors of diet and bad habits of living. It is due to occupations where it is not convenient to attend to calls of nature, and at other times through laziness where these people have plenty of time for everything else, but none for this function of nature. Sedendary habits, lack of physical exercise, tight lacing, a tight sphincter muscle, a twist or band at some part of the colon, all of these causes must be taken into consideration, and it is not easy to determine

the cause in many cases. But if a determined effort is made this condition can usually be overcome in a great measure.

We will find the bowel loaded in all of these cases. A condition of impaction ordinarily exists. The normal mucous membrane of the bowel is covered by inspicsated feces, which become extremely hard and resistant to all cathartics.

Ulceration of the Bowel. At times we are confronted with a serious problem when an impaction is relieved, as a marked colitis may be present, or ulcers, more or less extensive. In one case we had a cast of the entire colon that was shed, leaving the patient in a deplorable condition for over two years, before granulations covered the wound. At other times an ulcer may have a bleeeding vessel and a very marked anemia may take place from hemorrhage before analysis of the stool shows where the loss is occurring. As a general rule we have the clinical finding of sudden faintness, passing off quickly, as many of the patients have described it as the "blind-staggers." They feel perfectly normal and when walking they say their sight fails them and they stagger along the sidewalk until they can sit down for a few minuttes. Examination in these cases show much blood in the stool.

From a clinical standpoint these ulcers offer much trouble, and present a serious phase that has caused so much apprehension. Ordinary haemostatics have no effect, and in several instances we have resorted to the injection of human serum, but that was known to be rich in fibrin.

The localization of these ulcers is well nigh impossible. Otherwise operative measures would be indicated at times. We have many times wished that surgeons would be able to remove the entire colon, to do away with the grave problem that is present.

Bowel Hemorrhages. It is surprising the number of people who suffer a loss of blood from the bowel. This may be unsuspected for many years. As a general rule they are very anaemic and are constantly taking tonics to improve their condition, but with no lasting success.

We have seen twelve cases of so-called petit-mal, that completely cleaned up when a recurrence of the hemorrhage from the bowel was checked. And the ulcer was healed. Surely enough mistakes to justify a hunt for bowel hemorrhage of this kind.

We have found also that many people who were given to fainting suddenly were also suffering from the same condition.

Many people who suffer from sudden attacks of weak heart also have the same condition, and so much data has been accumulated that we no longer consider our duty as discharged until a stool examination has been made, with all possible care as to diet, flushing and catharsis for at least ten days previous to the examination.

The routine examinations as made in the ordinary chemical laboratory are valueless. Owing to the fact that no preparation is made for them, the labatory is supplied with a large ill-smelling mass, about four-fifths of which is micro-organisms, of practically every kind and variety. Almost anything can be found in these stools, and in great quantities. Inasmuch as no restriction is placed on diet, a great amount of debris is present, which is undigested, and the residue is fermenting and putrefying.

If, however, we first clean up the bowel as far as practical and place the patient upon a clean restricted carbohydrate diet fo r ten days, we then get the micro-organisms that are in contact with the bowel, and it is of importance to know their chemical characteristics and find how pathogenic they may be in individual case.

No laboratory is justified in diagnosing the flora of the bowel from a smear made from its contents. Only upon cultures of different media and plating can they be positively indentified, and a surprising amount of information obtained.

To illustrate, we know that we are going to have a long drawn-out fight with many disappointments before our patient is well, if the bacillus Welchii is present, and in no case have we been disappointed in our prediction. The tenacity with which this micro-organism will cling to the intestinal canal, in spite of diets, catharsis, enemas and antiseptics is certainly remarkable. It apparently has a great adaptability and can live on any food supplied, and apparently suffers little loss of its pathogenic properties.

So characteristic is its odor that our laboratory workers now recognize it before its presence can be proven.

Patients who are infected with this microbe usually are in a miserable state of health, sporadic diarrheas, great weakness and prostration, with foul smelling stools, a very heavy coating on the tongue and an aromatic odor on the breath.

All of these people have been great milk drinkers for several years, and it is certain that from this source the great epidemic of enteritis in children is yearly started, which carries off so many thousands of our little ones.

Our experience has shown us that it takes nearly a year of the most careful painstaking work to eliminate this micro-organism from the intestinal tract.

Bacillus Icteroides. A micro-organism that has given us the most trouble has been the bacillus icteroides. In these cases a peculiar extractive in the urine is found. The patient is always obstinately constipated. Colonic peristalsis is usually absent. Undoubtedly they are within the bile tract, as more or less inflammation of the common duct is present, with some absorption of bile. The sclera is always stained yellow, and a mild jaundice is noticed from time to time.

This infection was found in two physicians, and as they could not be persuaded to give proper attention to themselves, they still are in miserable health. We regret our inability to follow these two interesting cases. Both are suffering from a profound anaemia, one being 42° and the other 46° of hemoglobin, while the white cells were below 5000. The blood picture was extremely bad, many distarted red cells being present. These people all showed a marked abnormal chemical balance.

Colonic Ulcers. Their Cause and Treatment. Ulcers in the colon result from many causes. Usually where an impaction exists, with an active putrefaction underneath, at times due to the violence from an unchecked diarrhea, and the presence of acrid putrefactive material in the bowel. Occacasionally they become infected with tuberculosis or a cancerous degeneration may take place. Much investigation is needed along these lines before many of the dark places will be cleared up, so as to become useful to the clinician.

Inasmuch as these conditions usually take place in people with impaired health, it would seem reasonable that we could not expect to cure them, if we neglected the individual as a whole.

Treatment of Ulcers of Colon. We have done much experimental work along this line, and have to come back to the same proposition we would be compelled to do with one outside the body, that is, local treatment alone will cure them. We should aim to regulate the diet to the minimum required, in order to lessen the amount of waste turned into the bowel, which is not assimilated, and this can be done by feeding high on sugars, fats and cereals,

and eliminating all of the nitrogen derivatives.

For local treatment we use a special soap made from oils of lavender, cloves and eucalyptus, and dissolved in alcohol. It is made supra-fatted and free from alkali, and is used with water at 106 degrees F. once a day. As soon as it returns completely, it is followed by cold starch solution with 4 c. c. of sodium bicarbonate. If this is given at the body temperature it is retained. In some cases 2 c. c. of boric acid is used in the solution. This procedure not only gives us a reasonably clean bowel, but a deculcent, antiseptic alkaline application that is soothing and well tolerated by the bowel.

A light mineral oil or large quantities of olive oil are given at intervals in order to prevent masses from accumulating anywhere in the intestinal tract.

The use of strong antiseptic solutions has never shown any results in our cases.

Vaccines in Ulcers. In every case of bowel ulcer the feces should be plated out and a mixed vaccine made from the micro-organisms that seem likely to be the offenders, and their use commenced in small quantities, although in our experience we have not hoped for any startling results from them, and so far we have never gotten any results that were likely to make us very enthusiastic regarding their use in this condition. However, they do help some, as we have found when we have gotten to the end of our resources and have used them hoping for the best, and have been successful where we did not expect to be.

The clinical use of vaccines is followed by remarkable results in many cases of chronic infection, while in others, for some reasons not quite clear, their use seems to be without value. There is some intangible thing connected with the patient and not with the vaccines that gives this peculiar result, possibly a lack of complement.

Hemorrhagic Ulcer. The treatment in this condition is approximately the same as in the ordinary ulcer, with this exception, that the fibrin and calcium content of the blood should be determined and either calcium or serum used to make up any deficiencies that may exist.

Usually the ulcer is situated so high that at effort at local treatment is likely to be a failure. Good results have been reported by Waugh from the use of atropine daily for the purpose of stopping intestinal hemorrhage.

Articles and Contributors for The December Recorder

A particularly attractive list of articles and contributors is presented for the December Recorder.

Each one is interesting and valuable, and best of all, original. Every number of the Journal will be worth while and will be found a good investment. The list follows:

"Aconite and Veratrum — Their Similarities and Dis-similarities," Dr. C. F. Lynch.

Article by Dr. W. Stuart Leech, Roseau, Minn.

"Harmless Hobbies for Doctors," Dr. W. T. Marrs, Peoria, Ill.

"Advice to Young Doctors Just Starting in Practice," Dr. F. P. Davis, Enid, Okla.

"Immunity and Vulnerability," Dr. I. Miley, Anderson, Ind.

"Argyrol and Protargol," Dr. J. A. Burnett, Hartshorne, Okla.

"Fever," Dr. G. G. Burdick and T. C. Abel, Chicago.

DRUGS

GEORGE L. SERVOSS, M. D.
Gardnerville, Nev.

In the September Recorder the editor makes a few remarks on the subject of drugs, giving especial consideration to the matter of dispensing. He says that this matter is left entirely within the hands of the individual doctor, which none will gainsay, as this is really the truth of the case.

There are, in many instances, numerous instances why it is preferable to dispense, and the editor gives the most salient one of the whole, the fact that the dispenser knows that he is getting active drugs in all cases and that he is more liable to obtain results than would otherwise be the case. He calls attention to the "just as good" proposition which is so common, and this is well. It is possible that this may be the truth, but there is no reason why any of us, either doctors or druggists, should "fall for" such an argument.

There is a good deal of folly about the argumnt that the doctor is in the habit of buying drugs for the simple reason that they are "cheap." No matter whether a man dispenses or prescribes remedies for his patients it is of paramount importance that the drugs, or other agents, so ordered be first-class in every particular, and the dispenser, along with the prescriber, falls to destruction if results are not forthcoming from his applicaion of those agents which it is anticipated will give satisfactory results. Results are absolute necessities in the life of the doctor, and he who does not obtain them, and that as quickly as possible, may as well quit the practice.

For some time it was my pleasure to be a traveler for a pharmaceuical house, calling on both doctors and druggists, and it was my experience that less than one per cent of the doctors bought drugs which were cheap, and for no other reason, and I found that it was possible to get such men to purchase better goods after showing them it was possible to get better results therefrom. I found, on the other hand, that many of the druggists are prone to buy substitutes for known active remedies, because they were cheaper than the latter, and for which they were substituted on prescriptions. While it may be true that the syrup of hypophosites is not all that is claimed for it, much of this particular thing was purchased in bulk, for the reason that it was cheap, and substituted for a special make thereof in the filling of prescriptions. I am not saying that the bulk goods were not exactly as effective as was the original syrup, but if a man will substitute this one thing, he will do the same with others. There is but one of a long list of "just the same" goods purchased by druggists and employed in the filling of specified prescriptions. Not that any of these bulk goods were inferior or without activitiy, but the action in employing them when other goods might be specified was nefarious and an injustice to both doctor and patient. The doctor presumed that he was getting that which was ordered. The patient was charged the same as for the special product ordered, despite the fact that the bulk goods frequently cost much less.

The editor calls attention to the fact that the doctor is liable to purchase more of one thing than he can use within such time as to assure him that his drugs will be in good condition. But what of the druggist. Many of the latter class will buy a pound of fluid extract, because it is cheaper in proportion than a half or quarter poud package, and continue using it day after day, month after month and year after year, in spite of the fact that it may be a product known to deteriorate with age. I have seen drugs of this sort more than ten years old employed in the filling of prescriptions, and when

objections were made by the doctor to their use the druggists have insisted that such drugs were all right and further, that they could not afford to throw them out.

Today we have our plant drugs offered to us in such form as not to be very, if at all, liable to deterioration, even though carried over a considerable length of time. Drugs of this sort have been reduced, in quite a majority of instances, to their simplest forms, viz: the active principles. If such products are properly handled and manufactured, even though the doctor may over-supply himself, he will usually find such goods active indefinitely. The galenic products carry all of the contents of the plants from which they are made, excluding the insoluble solids, and it is an accepted fact that goods of this sort are liable to deterioration, and that in some cases within a very short time after their manufacture. Those which are fluid or semi-fluid show a greater or less evaporation, the former eventually displaying a precipitate. The Lord only knows what the latter may carry, or what the remaining liquid may contain. Not so the active principles. Their name is indicative of their form. They consist of the active portion of the plants, reduced to their simplest and unchangeable forms and segregated, one from the other. They are handled as solids and in consequence do not show the changes which take place in the galenics. Not only do many of the galenics show evaporation, but many of the powdered extracts of the plant drugs are hygroscopic and take up water rapidly, with the consequence that their activity is lowered, without a single doubt. The active principles, on the other hand, are covered with an impervious coating, if properly manufactured, and even if hygroscopic, do not gather water from the air.

And then, as their name implies, the active principles are invariably active and give quick results, if employed according to indications. Being reduced to their simplest possible forms, and unassociated with anything of an inhibitive nature, the results, case for case, are invariably identical, providing indications are always considerd. Not only is this true, but such isolated principles are not associated with other active contents of the plant from which they are obtained, consequently there is nothing to interfere with like effect in all instances. Not so the galenics, which invariably carry all of the active plant contents. As an example we will take the whole drug opium. While morphine is the predominant active principle, the crude drug carries practically a score of others. Some of these have the same effect as does morphine, being of hypnotic, antispadmodic or anodyne action, while others are markedy tetanic in effect. Morphine is the most important of the opium principles and whole drug products thereof are standardized according to the morphine content and without regard to any other active principle of the drug. Those of tetanic action vary, lot for lot, and that to a considerable extent, in some instances sufficient to inhibit the effect of the morphine content. Gelsemium is another plant carrying principles of activity diametrically opposed, one to the other. One is of antispadmodic effect, while the other has an action similar to that of strychnine, and in nature there is no such thing as the same relative strength, within the plant, of either. As but one principle of this drug is considered in the galenic products it is possible that the other may be present in such quantiy as to seriously interfere with the desired drug action, viz: antispadmodic. It is possible to go farther and cite other examples of this sort, but this is needless, as these are sufficient to demonstrate the fact that the isolated active principles are invariably preferable to whole drug products, even though the

latter be of standard quality when manufactured.

With the introduction of the active principles a new method of dosage was introduced. Instead of ordering large amounts of any one drug, it was found that small amounts thereof, in the form of the isolated principles, and those given at frequent intervals to either physiologic or therapeutic effect, gave better results. The druggist did not like, and still objects, to this method of medication. A few granules of strychnine, aconitine, hyoscyamine, or some other active principle did not allow him to make any considerable charge for the medicine ordered, and many of this class took it upon themselves to question the action of the doctors' orders. A dozen ganules could be charged for as would be a two ounce fluid mixture and the druggist saw very plainly that, were such practice to continue, it would mean a decided loss to him, consequently his objections. But the doctor soon found that much might come from a little in the way of active medicaments, and if he could not prevail upon the druggist to properly fill his orders, and that without remarks on the part of the latter, he must, perforce, dispense his own drugs. Following up the method of handling of the isolated active principles, the doctor soon found that it was possible for him to get better results through going from one drug to another, as the indications showed change. If he started in with aconitine in the morning, in a case of pneumonia, wherein the drug was indicated, and found later during the day that elimination was being interfered with, it was an easy matter to change to veratrine, and that without the loss of a single bit of the agent previously employed. He found, if dispensing, that he could leave just enough, and no more, of any drug to carry the patient through to the next observation. This has not been the case with those men who have been in the habit of employing the galenics. Just enough, and no more, to carry the patient to the next observation would be a comparatively small amount, and as a rule more than enough has been the rule on all orders. Consequently an injustice has been dealt the patient. He who uses the galenics almost invariably leaves behind him numeous packages, practically emptied, of unsound remedies. He who employs the active principles rarely leaves anything behind when a case passes out of his hands.

When one takes up the list of any of the chemical or manufacturing houses handling the active principles he is frequently appalled by the prices staring him in the face. However, if he makes a proper comparison he will find that there is not a disparity between these and those of the galenics, dose for dose considered.

In order that any dose of all the galenics be obtained it is frequently necessary that a large amount thereof be administered. By dose I mean a sufficient amont of the active principle of the drug employed. And then the galenic is almost invariably employed in each single dose with the idea of obtaining full physiologic effect, the interval between doses being considerable. The patient is hit a "sledge hammer" blow with each succeeding dose. Not so with the isolated active principles, employed in minute quantities and at frequent intervals. The effect, either therapeutic or physiologic, is obtained gradually, and very frequently with less medicine than is required when the galenics are employed. Idiosycrasy is practically an unknown quantity in active principle therapy, as it is rare that sufficient of any drug is employed, in a single dose, to bring about such condition. Consequently, although the prices for these isolate principles seems relatively higher than that of the galenics, they are not as expensive ultimately.

The editor brings forth the subject of the refilling of prescriptions, and it is well that he has. This is a thing which is practiced day in and day out by practically every druggist in the country. Not only do they refill those orders which have no indications to the contrary, but very frequently pursue this practice with many, on the face of which it is distinctly mentioned that such prescription be not refilled. Many of those carrying the morphine and other drug habits have been known to have acquired them in this manner. Not only do the druggists refill prescriptions for the original owners thereof, but it frequently happens that they deal out the same medicine to others. I have known certain cough remedies to be scattered broadcast in this manner. I have seen case after case of gonorrhea treated by the druggist through the use of the order for a case, issued previously by the doctor, and there are many other instances of this sort. In a city where I once resided one druggist made up and advertised Dr. So-and-So's prescription for rheumatism, and that long after the doctor had passed to the Great Beyond. And the original number of the prescription was employed in this instance.

The editor omitted saying anything about counter-prescribing on the part of the druggist, and this is one of the greatest crimes of which he, the druggist, is guilty. He treats every case presenting, regardless. As an excuse for such action he frequently tells the doctor that the patient would not have visited the latter, and that "someone should get the money." In other words, rather than do an act of charity by furnishing a poor man with medicine gratuitously, as would the doctor his services, thus giving the best possible attention, the druggist would take what he happened to have, rather than suffer a slight loss and do something for humanity, and that well done. Not only are the druggists guilty of acts of this sort, but many of them either comment upon the orders of the doctor or substitute treatment of their own therefor. Not so very long ago I had a case of ulceration of the hand with considerable local infection, as well as involvement of the lymphatics of the forearm and arm. I succeeded in getting the site of the original infection in fairly good shape, with some reduction of the infection higher up. A dry dressing was employed, succeeding a wet one which had been used for some days. This man went to the druggist for a new supply of gauze, bandages and other supplies, and was told by the latter that he had a salve which would do more good than the dressing I had been employing. The result was that the man listened to the druggist, used the ointment, and had a hand which was sorer than ever before. This meant that the work had to be done over, with the added expense for the doctor's services. Had the druggist kept out of the case entirely it is probable that recovery would have taken place within a short time. I have seen druggists prescribing for all sorts of things. Not long ago a young man with a cough went into a drug store. The clerk asked him how he felt and then went to the stock cough syrup bottle, the remedy used for all sorts of coughs, and dealt out a four ounce bottle thereof. As it happened the cough in this particular was exceedingly "tight," but the patient got morphine, which we all know was contrainidicated. This was a case of incipient pneumonia, and finally passed into the hands of a doctor, the latter dispensing his drugs. As luck would have it, this patient survived the druggist's treatment. Shortly thereafter I wrote a prescription for a stiumlant expectorant and to my certain knowledge this order was passed around to many, and without any orders to such effect on my part. The druggist found that

this mixture was effective in the case for which it was ordered and made up quite a stock which he used in counter-prescribing.

In view of the treatment which many of us have received at the hands of the druggist it is little wonder that we dispense. We are practically obliged to do so in order that we may be fair to both ourselves and patients. When we dispense we know, and that absolutely, that our patients are getting exactly that which we would have exhibited. Dispensing enforces economy on the part of the doctor, as no man is going to throw away a single thing. The dispenser employs just enough, and no more, of the indicated remedy. This seems a saving to the patient, and that is a matter of great importance to he who is ill and "out of the running" insofar as earning capacity may be concerned. He who writes prescriptions does not take this matter of economy into consideration, as a rule. He is not obliged to count the cost, and even though there may be much unused medicine on hand at the termination of any case, the patient and not the doctor stands the cost.

One thing which the editor overlooked is the fact tha the average dispenser knows his tools much better than does the average prescription writer. The former studies drugs at first hands. He handles all the remedies employed by him and in consequence becomes acquainted with their physical forms. On finding that the goods of one manufacturer are superior to those of another, the conscientious doctor makes his purchases from the former house. He who depends upon the druggist to fill his orders knows not what make of drugs will be used. The druggist almost invariably buys through the jobber and takes what the latter may send him. The druggist, except when purchasing special lines of goods, rarely specifies. The dispensing doctor, even though he may purchase from the jobber, almost invariably specifies. Consequently the patient who is under the treatment of the dispenser, who knows his tools, is more liable to receive better attention than is he who happens to be receiving attention from the prescription writer.

The editor truly says that the numerous "Pathies" existing today are here because of the use of inert and worthless drugs. He should have gone a bit farther in his argument and called attention to the fact that many failures on the part of the doctor were due to his lack of recognition of indication for the special uses of his drug agents. This would have covered the ground completely. Many of us still cling to the old idea of treating diseases as such and without attention to he individual indications arising during the course thereof. The "Favorite Prescription" is still in vogue to a very considerable extent, and is employed with disaster in case after case. Were we all to study our indications and know what agents would bring results therein we would get such results as would wipe out all the irregulars. There would be a cessation of the various "Pathies" and the doctor would come into his own, and would hold that position forever. The medical profession reminds one of a band of sheep. If the bell-wether goes over the precipice the rest of the band follow. The same is true of the doctors. If one of the so-called authorities tells us that drugs are worthless we accept such argument without question and let many of our patients die for lack of proper attention. We have been told that many of the acute infections are "self limited" and that treatment thereof is practically without avail. And many of us have accepted such teaching. This has acted to lower faith in the profession as a whole more thany any other one thing. However, there are a few of us who have succeeded in aborting, or at least abating, many of these so-

styled "self limited" diseases. We have been told that our diagnosis was faulty and that we knew not what we were treating, and that in the face of epidemics in which our cases tallied closely with those which were correctly (?) diagnosed. We who have obtained this sort of results have been the men who have ignored names of diseases, insofar as treatment might be concerned, and have gone ahead and met the indications as they have arisen from hour to hour, day to day or week to week. We have studied our drugs and their possibilities under certain existing conditions, and have gotten results, almost miraculous in some instances.

It has been said, and very truly, that we have but very few specifics for diseases as a whole. Nevertheless, we who have studied drugs and their applications, in the face of individual indications, have found that we have many specifics under such circumstances, and that specific drugs for specific indications frequently obtain like results, case for case. We who give attention to the indications, as they present, frequently get very prompt results, and that with a minimum use of drug agents. In fact he who treats the indications as they arise, rather than the disease as a whole, not infrequently sees recoveries before it is possible to give the condition a name.

The dispensing doctor has another advantage over the prescription writer. The former is able to immediately apply his remedies and not infrequently does he obtain results long before a prescription could have been filled and returned to the patient. The doctor at times is able to await the action of his first few doses of medicine and to observe whether or not an improvement of the conditions takes place. Not so with the prescription writer who would lose valuable time were he to await the return of the remedies ordered. When the patient is under the care of the dispenser he begins getting his medicine immediately and at the next observation some effect has taken place. In some instances, when goods have been ordered by prescription, the doctor finds that they have just arrived, or that only a dose or two has been taken at the time of second visit. And then, as has occurred in my own experience, where more than one prescription was written, the patient, or his family, leaves out one completely, possibly the one most desired. Not so he who gets his medicine from the dispenser. That which is indicated is left and the patient does not realize that there is an additional expense incurred through having more than one lot of medicines. Nothing is said as to the medicines and their cost. The doctor either makes his fees sufficiently high to cover their cost or makes an additional charge therefore. As a rule he does not endeavor to make any profit on the drugs furnished. This means a saving to the patient, as compared with the cost of prescriptions. I have carried cases of pneumonia through at a cost of less than one dollar to the patient for medicine, and he never lacked for proper attention at any stage. I recently saw seven prescriptions filled for a case of this sort and at a cost of upwards of $5, and this the first day. This patient's drug bill was upwards of $25 and he died. I do not question the ability of the doctor on this case, but it is possible that the patient was over-drugged. I do know that "favorite prescriptions" were employed, regardless of specific indications, in this particular instance.

Let us, after we have supplied ourselves with good, pure drugs of known activity, study their application as per indications, and it will not be long until we find less fault found with us. If we encounter a case of diarrhea let us not lock up the bowels with opium, but rather let us recognize the indication for a prompt cleaning out thereof, thus

removing the cause. Let us study our conditions more thoroughly and know what is indicated and there will be less of that bugbear "therapeutic nihilism" and its attendant horrors. If we know our drugs and their applications we will keep our patrons with us indefinitely, as results count more in medicine than in any other one thing. We will not see simple medical cases going out of our hands and into those of the specialist if we properly apply good drug agents. We will be looked upon as men well posted in our following and in consequence will be well patronized by our local people. It will be said of us that we get results, and those quickly, and that our communities are in good condition because of the fact that they possess good doctors. The medical profession will cease to be the "joke" that it is at present and has been for time out of mind.

INVESTMENTS

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REAL ESTATE MORTGAGES.

The mortgage is probably the oldest for of investment. The first mortgage known dates back to about 200 years B. C. when they were in use by the Babylonians. One bearing date of 330 B. C. (about 2300 years ago) was discovered in the ruins of the ancient city of Nipur, Babylon by the Archaelogical Expedition of the University of Pennsyvania. A translation of this mortgage, which was inscribed on a brick as was the custom in making permanent records at that time, may be of erintest. It is as follows:

"Thirty bushels of dates are due to Bel Nadin Shun, son of Marusha, by Ben Bullitsu, and Sha Nabu Shu, sons of Kirebti, and their tenants. In the month of Tashri (month of harvest) of the 34th year of King Artaxerxes I., they shall pay the dates, thirty bushels, according to the measure of Bel Nadin Shun, in the town of Bit Balatsu. Their field cultivated and uncultivated, their life estate is held as a pledge for the dates, namely thirty bushels, by Ben Nadin Shun. Another creditor shall not have power over it."

It will be seen that this a note and trust deed in one, and becomes a first lien on the property due to the wording of the closing sentence, "Another creditor shall not have power over it."

First mortgages netting 5½ to 7 per cent may be bought through most country banks in amounts of from $200 upward, and running two to five years. These if properly selected and based upon the producing value of the land are to be considered as safe and desirable investment.

REAL ESTATE AS AN INVESTMENT.

There is no better investment than real estate, providing it is in a good country. And there is more dangerous place to invest than in lands in distant states where you cannot give them your personal supervision. There are some states that have fine soil, but from some cause or another have never been permanently settled. In some cases the state laws are such that it is not practicable to build up a well settled farming community. Texas, for instance, is one state that has more land men selling farms than any other state that I can recall. Texas has some very fine land, but it also has a state law forbidding the mortgaging of homesteads. Mr. M. J. Richardson, speaking of the evils of this law, says: "It has rendered the state a commonwealth of, for the great part shiftless renters and illiterate laborers. A great portion of Texas is in the hands of a comparative few, who reside in town, engaged in the real es-

tate or banking business, and who exact big rentals and yet allow the farms to stand unimproved virtually as regards dwellings and sheltering for any live stock the nomadic renter my possess.

"It is too frequent and sad occurrence to witness the small Texas farmer applying for a loan with which to make much needed improvements or to acquire more acreage to work with his growing boys, and to find that this law stands as a barrier to his carrying out the only possible plan for the farm's betterment.

"The concerns with large tracts of Texas lands selling in Illinois, Missouri and Iowa carefully conceal this homestead feature, which has resulted in settlers soon leaving the hastily purchased land (without even waiting to dispose of it, in some instances, and coming to Oklahoma or other adjoining states, or returning, broken in spirit and purse, to the regions from which they originally came."

SAVINGS BANKS, USURY, ETC.

The first savings bank was founded in the year 1811, and in the century or more since that time the savings bank idea has spread all over the world. Now we find savings banks in every town of any considerable size, and every person of small or moderate means deposits his money in these banks as a rule. Savings banks pay from 3 to 6 per cent, according to location and the demand for money. I consider that any rate of interest from 6 per cent up to 12 per cent. is a good investment, and if carefully placed is safe. Money earning less than 5 per cent. is "loafing on the job." Commodore Vanderbilt once said: "Get 6 per cent. and keep it up long enough and you will own the earth." Some one has said that the greatest inventor in the world was the fellow who "invented interest."

I do not believe in usury laws applying to contracts. Loans should bear interest at the rate agreed upon, and if a man wants money bad enough to pay a high rate the law should not prevent the man who has money to loan from accepting all he can get. It is just as reasonable to set a legal price per bushel at which a farmer may sell his wheat or corn as it is to set a limit on the income one may get on money. I have paid 48 per cent (4 per cent per month) for money, and I have received 5 per cent. a month (60 per cent.) In my case it was worth all I paid. Then I did not have to pay it—it was not forced upon me. The element of risk always increases with the increase in the rate of interest. The man who can offer guilt edge security does not have to pay a high rate, while the man whose security is shaky must pay a high rate to offset the element of danger. It is the difference between investment and speculation. A noted authority has stated it this way: "Planting seeds of corn in a hill is an investment. Betting on how many ears the seeds will produce is speculation."

The best index of the thrift of a country is its number of savings bank depositors in proportion to its total populatio. And here the peculiar fact is brought out that the higher the wage rate of a counry the lower the number of savings bank depositors.

Dr. Henry Seth Williams, a noted authority on the subject, recently compiled figures showing the proportion of savings bank depositors to the total population of a number of countries. In our showing we cannot take much pride. This is Dr. Williams' table showing the savings depositors per thousand population:

Switzerland	554
Denmark	442
Norway	515
Sweden	404
Belgium	397
New Zealand	360
France	346

Holland	325
Germany	317
England	302
Australia	300
Tasmania	280
Japan	270
Italy	220
United States	99

"Thus in each of the leading countries of Europe there is at least one savings bank depositor for every family in the population," says Dr. Wililams. "Switzerland has five depositors for every two families." He continues by giving the relation to the wage scale of the four great industrial countries of the western world.

"(1) France has the lowest wage scale and the highest per cent. of savings bank depositors (34.6).

"(2) Germany has a slightly higher wage scale and a slightly lower savings bank per centage (31.7).

"(3) England has a wage scale still higher and a savings bank per centage correspondingly lower (30.2).

"(4) America has by far the highest wage scale and by far the lowest savings bank per centage (9.9)."

Trade for trade, the American wage scale is not far from three times the French scale. The savings bank depositors in France is three times as great as in America. It is evident that the American believes in keeping money in circulaion.

THE NEW CURRENCY BILL.

The working plan of this bill in brief is that all the national banks of the country shall be organized into twelve districts to be known as regional reserve districts, each bank becoming a member of the regional reserve bank of that district by a forced subscription of 20 per cent. of its stock as capital stock of the reserve bank, thereby giving them rediscount privileges with the regional reserve bank; that is, the privilege of having the paper of the local bank put up with the regional reserve bank as collateral for funds to make additional loans by the local bank. Each of these twelve regional reserve banks are controlled by a board, a majority of which are elected by the banks of the district, and all the regional reserve banks, together with the discount, rediscount and other privileges of the local bank to be under the control of a supreme board of seven, this board to consist of the secretary of the treasury, the comptroller of the currency and the secretary of agriculture, together with four other members, all of whom are appointed by the president, with terms ranging in such a way that every president coming into office will have immediately the appointment of four out of the seven. The danger in this bill is, as pointed out by William H. Murray of Oklahoma, is that "It gives the president, whoever he may be, absolute control over all the banks in the United States, because the bill provides that not only the 7,500 national banks shall join the system, but all the 17,500 private banks, state banks and trust companies may join; in effect giving the presidet the direct control over the entire 25,000 banks of the United States; and therein lies, to my thinking, the greatest evil in the bill." It is evident that the banks, their employes and stockholders will be interested in knowing who is to be president and secretary of agriculture. It is also reasonable to presume that the banks of the country could have considerable influence in selecting these officers.

I agree with a correspondent that physicians should study the important laws that are before congress. Eepecially is this true of the tariff and currency bills, and the narcotic bill now before that body. The narcotic bill is the most dangerous piece of legislation so far as the doctor is concerned that has ever been proposed. Should this bill become a law you will have to account for every particle of any narcotic that you handle. If you give a

patient a hypodermic of morphine you must keep a record of the amount, name of person and all the particulars. The revenue officer will come around at intervals to check you. This is the bill with which the drug trust hopes to forever bar the physician from dispensing. If all the doctors who read the Recorder would write to their congressmen and senators and insist that they work against this bill it will help to defeat it.

To my friends who ask my views on the dispensing and patent medicine question, I will say that I favor a law prohibiting any person from dispensing any medicine whatever except on the written prescription of a registered physician. This would stop counter-prescribing and the sale of stock remedies for all classes of diseases, and the sale of patents. At the same time I cannot but believe that many of the patents have as much virtue as a large per cent. of the prescriptions written by physicians.

MATERNITAS

By CHARLES E. PADDOCK, M. D., Chicago, Ill

(Continued from Page 300 October Recorder

Convulsions.—Children with perfect digestion and proper food rarely have convulsions. If a child does have a spasm, put the feet into a mustard bath, wrap the body up in towels which have been soaked in mustard water (two heaping teaspoonfuls to one quart of warm water), and send for the physician.

Should the spasm continue and the child seem weak, with nails and lips blue and hands cold, put him immediately into a hot bath. The temperature must not be over 106 degrees, and it must always be tested by a bath thermometer, which every mother should have, otherwise there is great danger of burning the infant.

Croup.—This is not ordinarily a dangerous condition, but as it usually comes on in the night with much disturbanec and distress ot the patitnt, it causes the parents much alarm. In a mild attack there is a noisy breathing, followed by a tight barking or croupy cough. When severe the breathing is more noisy and difficult. This form of croup must not be taken for membranous croup, which is a diphtheria of the larynx. While crop is generally considered harmless, it frequently is the forerunner of a more serious difficulty and a physician should be consulted. Home remedies, as the collection of steam from a kettle near the bed and giving the baby a few drops of syrup of ipecac, will suffice until the physician arrives. Croupy children must be kept dry and the feet warm.

Foreign Objects Swallowed, Etc.—Very young infants are not likely to get foreign substances such as buttons, marbles, etc., into their mouths, but when the baby begins to walk, the mouth seems to be made for all these articles. If some foreign body has disappeared into the child's mouth, examine the throat, because sometimes it may be lodged where it can be removed with the finger. If the infant be choking, hold it by the feet and a few taps upon the back will expel the foreign body. If, however, the object has passed into the stomach, the treatment must depend upon the age of the baby. in children who eat starchy foods, a considerable quantity of bread and potatoes should immediately be given with very little if any fluid. By this means a coating is formed around the article which passes on through the intestinal canal. Do not give an emetic nor a cathartic. If the foreign body be a dangerous or a very large one, the physician should be notified.

There must be no attempt to remove

foreign objects in the nose or ear by the use of any instrument in the hands of the nurse or mother. There is danger of injuring the child, and also danger of pushing the body farther into the ear. If it cannot be removed with the fingers, the child should be at once taken to a physician.

Tonsils and Adenoids.—Enlargement of the tonsils may be either hereditary or congenital. At the age of two years the symptoms are apt to become very marked, the most prominent being mouth-breathing, disturbed sleep and deafness. Associated with the large tonsils somewhat similar growths in the upper throat just back of the nose, known as adenoids, are frequently found. These conditions together are a serious drawback to the development of the child; fortunately, however, they are very rare in extreme infancy. When there is evidence enough to show that these growths are interfering with the baby's health, or that the baby is becoming a mouth-breather, active treatment must be instigated. The tonsils and adenoids must be removed. The mother does her child a wrong if she refuses to comply with the advice of the physician concerning this operation. The immediate benefit which children receive from the removal of tonsils and adenoids in aggravated cases is wonderful; often from being weak, puny children they quickly develop robust strength.

Mouth breathers, from whatever cause are poor sleepers, and their restlessness in bed, if not due to adenoids or to some defect of the nose, may often be corrected by fastening a bandage around the head and under the chin. This forces the mouth shut and compels the child to breathe through the nostrils. Wearing the bandage for even a few nights will often serve to break up the habit.

Much may be done to prevent adenoids and the enlargement of the tonsils by a careful attention to the hygiene of the mouth and nose of the infant. The mouth should be kept clean, as before menioned. If the nostril of a young child should become closed or inflamed by a slight cold in the head, vaseline or liquid albolene rubbed on the bridge of the nose or the application to the nostril of either of these substances will frequently result in redusing the inflammation.

Irrigation of the nostril by means of a syringe should never be done, except by the direction of a physician. The danger of forcing infective material through the Eustachian tube into the middle ear by the syringe is great.

Burns.—Only the slightest burns should be treated by the mother. Relieve pain by applying several thicknesses of gauze saturated with a solution of baking soda—a heaping teaspoonful to a glass of water. The wound may then be dressed with sterilized vaseline and covered. If the skin is broken call the physician.

Sunburn.—When painful sunburn demands treatment, cover the burn with oxide of zinc ointment.

Mosquito Bites—Ammonia, spirits of camphor or dampened salt rubbed onto the swelling will give relief from mosquito bite.

Bruises.—To prevent swelling and dsicoloration from bruises, immediately put on compresses wet with ice water or very hot water, or equal parts of alcohol and water. Continue this treatment for some time. If the discoloration has occurred massage with lanolin.

Cuts and Wounds.—Apply an antiseptic dressing made of clean gauze saturated with a boric acid solution, compressing the wound tightly if there is much bleeding, and let it remain until the physician arrives.

Frequently a needle is used to open a pimple or boil. Whenever the occasion occurs to do so the skin must be cleansed by soap and water and then alcohol. The needle should then be

boiled for twenty minutes or heated to a red heat in a flame. Many cases of infection occur by a neglect of this.

In every household there should be a medicine chest containing the following:

Glass graduate marked with fluid drachms and fluid ounces.
Medicine dropper.
Absorbent cotton.
Borated gauze.
Gauze bandages—assorted sizes.
Oil silk.
Boric acid (same as boraic acid) crystal and powder.
Pocket case of instruments containing scissors, knife, dressing forceps, sutures and needles.
Calomel, one-tenth and one-fourth grain tablets.
Camphorated oil.
Castor oil.
Sweet spirits of nitre.
Syrup of ipecacuanha.
Alcohol.
Whisky.
Olive oil.
Glycerin.
Tincture of iodine.
Mustard.
Soda mint tablets.
Epsom salts.
Vaseline.
Zinc ointment.

THE END

OPHTHALMOLOGY and OTO-LARYNGOLOGY

Conducted by
J. P. THORNE, M. D.,
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CHRONIC UVEITIS.

One of the important discussions in International Congress of Medicine was on the pathogenesis of chronic uveitis, excluding the syphilitic, tubercular, and sympathetic varieties, by Dr. Ernest Fuchs, of Vienna, and Dr. De Schweinitz of Philadelphia. In concluding his report De. De Schweinitz said.

Inasmuch as acute articular rheumatism rheumatic fever) is rarely, if ever, a cause of iridocyclitis (uveitis) and inasmuch as various types of myalgia (muscular rheumatism) and polyarthritis are in largest measure not strictly rheumatic affections, it seems advisable to discontinue the term "rheumatic iritis," or "iridocyclitis," and to substitute for it some title which does not commit us to an unproven aetiologic factor. Thus far the one suggested by Mr. T. Harrison Butler, to wit, "autotoxaemic iritis," although not a definie one, seems best to fulfill the indications.

Uveitis (iritis and iridocyclitis) occurring in the subjects of various forms of polyarthritis is doubtless due to the same cause which creates the joint affections; what the cause is thus far has not been discovered. Similar ocular affections in the subjects of various myalgias (muscular rheumatism) should probably be regarded as manifestations of the same infection or tox aemia which causes the muscle and fibrous-tissue pains and lesions, and, although the so-called rheumatic diathesis has been brought forward as an aetiologic factor, in the absence of definite knowledge concerning its pathogenesis a more explicit statement as to its causation, and therefore as to the causation of the iridocyclitis with which it may be associated, cannot be made.

Evidence is lacking that the rela-

tionship between gout and various diseases of the uveal tract (uveitis), (iridocyclitis) should be abandoned, in that no satisfactory proof has been presented that the same cause which produces the same manifestations of gout, for example, eczema, joint lesions, etc., may not also produce a chemical inflammation of uveal tract. It is not unlikely that diabetes, but much more rarely, can be accused in the same manner.

There is satisfactory evidence, clinical and bacteriological, that the majority of cases of uveitis (iridocyclitis) are caused by micro-organisms or their toxins. Potent in this respect (omiting those excluded from this discussion) the gonococcus and the staphylococcus are not conspicuous. Other bacterial elements doubtless may play a similar role.

That the gonococcus is the cause of many cases of iritis and iridocyclitis is unquestioned, and that it is the cause of many cases ordinarily classified as "rheumatic" is undoubtedly true; that it may be the cause of chronic insidious uveitis, especially as it occurs in women, has not been definitely proved, but it cannot be entirely excluded from the list of micro-organisms this disease.

The primary source of infection from which the staphylococcus proceeds and reaches the uveal tract, there to create an inflammation, in all probability most frequently is a chronic septic process in the mouth (pyorrhoea alveolaris), in the tonsil, in the nasopharynx, in the accessory nasal sinuses, in the uterine cavity, in the skin (boils, furuncles, etc.)

It is probable that in most instances the living bacteria reach the uveal tract and by their presence and their elaborated toxins bring about the various types of inflammation which are classified under the general term "uveitis," the process being a non-suppurative one on account of the modification which these bacteria undergo in their passage through the blood streams. Although the term "inflammation," as ordinarily defined and conceived, comprehends a pathologic condition characterized by the presence of bacteria at the site of activity, there is much evidence to show that lesions possessing all the fundamental characteristics of similar lesions which result from the immediate action of living bacteria can be brought about by bacterial toxins, and that in these lesions there is nothing to suggest that in the course of their development bacteria were immediaetly present. (Abbott). Therefore, while proof may be lacking that bacterial toxins circulating in the blood are capable of causing localized inflammations of the uvea, proof is equally lacking that such is not the case.

Indeed, we are not justified in denying that these toxins have this power, unless we are also willing to reject the theory of specific combining affinities.

As it is possible to speak intelligently of auto-intoxication only when poisons are formed by the tissues of the body itself, that is, within the metabolism, and are not introduced through specific bacterial infections, and as we have no accurate knowledge of these toxins, it would seem wise to discontinue the term "gastro-intestinal auto-intoxication," although freely admiting that gastro-intestinal intoxications of bacterial or parasitic origin are potent sources of infection.

Although indican, when found in excessive amounts in the urine (indicanuria) is an index of intestinal putrefaction,, its absence does not prove that a gastro-intestinal intoxication is not present, nor is it proper to depend upon the presence of this substance alone for information in these respects. If after thorough analysis urobilin, phenol, increase in the percentage of ammonia output, excess of fatty acids,

and increase of conjugate sulphates above 200 mgm, etc., are determined, intestinal putrefaction dependent upon the activity of the bacteria on the food stuffs in the intestines has been demonstrated. These analyses do not in any way prove that any toxic substance elaborated in the course of a so-called gastro-intestinal auto-intoxication, that is, a toxin formed within the metabolism, can by its toxic properties produce a uveitis, but they do prove the bacterial activity to which reference has been made and indicate a source from which these bacteria or their toxic products may proceed and cause an inflammation of the uveal tract, exactly as bacteria from other foci have a similar influence. In this sense, therefore, gastro-intestinal intoxications have a definite right to be included among the aetiologic factors of uveitis.

Chronic insidious uveitis, especially as it occurs in women, who are often anaemic, is in all probability most frequently excited by bacteria or bacterial toxins which have come from foci of chronic sepses, particularly in the mouth, the tonsils, the sinuses, the pelvis, and the gastro-intestinal tract.

While indicanuria certainly has not been proved to have the relationship to the development of certain types of chronic and relapsing uveitis (iridocyclitis) that has been given to it by some writers, there is good reason, as Elschnig insists, to study patients with these diseases of the eye from the metabolic standpoint. This study, however, should not be confined to the ordinary tests of indican in the urine, but should include a thorough investigation of the patient's metabolism. It is probable that such studies may eventually lead to the establishment of a definite group of diseases of the uveal tract called into existence by infections of bacterial origin arising in the intestinal tract.

THE REMOVAL OF A PLATE OF FALSE TEETH.

By D. Braden Kyle, M. D., Philadelphia, Pa.

This foreign body which I present was very difficult to locate, in spite of its size and shape, on account of the granulation tissue which had organized into fibrous tissue, together with curvature of the spine, as the X-ray picture shows. The patient swallowed the upper suction plate with four front teeth attached while sleeping. The plate lodged in his throat, and a physician who was called in wished to push it down into the stomach, to which the patient objected. He then went to a hospital where, after the passage of several instruments, he was assured that he had never swallowed the plate or that it was longer in the esophagus. For a few weeks after the patient felt slight pain in the lower part of the neck at the point he always felt that the object had lodged. At that time there was no sensation, but swallowing has always been difficult. The Kahler esophagoscope was used, and many attempts were made before this foreign body was successfully removed. By loosening the plate from the fibrous bed by setting up slight inflammatory action and then waiting a few days, the plate was removed without much ulceration of the structure. —Va. Med. Semi-Monthly, Oct. 10, 1913.

QUICK EMESIS.

When it is necessary to quickly empty the stomach direct the patient to drink as much warm water, made slightly alkaline by soda, as they can swallow and then inject one-tenth grain of apomorphia. The results will be quick and very satisfactory.

MISCELLANEOUS

THE BOARDS OF MEDICAL EXAMINERS.

Dr. E. T. Fish, Milwaukee, Wis.

Except as hereinafter mentioned I shall advocate in this paper the abolition of all state boards of medical examiners. As a starter I will say that these boards are usually appointed by the governors of the different states who might take more into consideration the political leaning of the doctor than his professional ability. True, in many states it is the custom for the medical society to make recommendations to the governor, but, as I understand the law, he is in no sense obligated to observe these recommendations.

Boards create a monopoly in restraint of trade.

What knowledge can our societies possess of the qualifications of its members? These men attend the meetings, write papers, read papers, and discuss papers, but really it does not call for a great deal of erudition to do this. It does not require a heap of wisdom to ask questions. For example, "Doth the wild ass bray when he hath grass or loweth the ox over his fodder? Can that which is unsavory be eaten without salt, or is there any taste in the white of an egg?" Can you answer these questions? I doubt it, sic transit gloria mundi.

Boards create a self-satisfied profession and by barring competition lead to professional stagnation or at least do not stimulate further research.

Within the past ten years a revolution has taken place in medicine and surgery and I take pleasure in lining up with the insurgents against the stand-patters. The revolutions which are taking place in medicine keep us jumping like toads and with the gravity of a sphinx. Many of us are making a grand stand play, with shaven faces, standing collars and open, serious mien. It is true that discoveries are made and the curtain is raised little by little, but usually by men with unkept, dishevelled hair and unostentatious habits. Let us modestly admit this and try to deserve our claim to recognition without surrounding ourselves with a stone wall, for such things must yield to the continuous batterings of investigation. Tempora Mutantur et nos mutamar in illis. Do not imagine that because a great discovery is made now and then that we too are great. We must go to headquarters to attain this and but few of us are likely to do so unless we are driven by competition.

No good reason why graduates from regular recognized schools of the United States should not hereafter be allowed to practice anywhere in this country.

The time is near at hand when the schools will be compelled to toe the mark in class "A." I cannot conceive why anyone who secures a diploma from such a school ought not to have access to any of our states. I am assuming that all irregular schools will close and imposters will be dealt with according to law. A diploma which will permit one to practice medicine in New York and not in California, or vice versa, it seems to me is unconstitutional, and I for one should like to see the law contested.

What is a recognized school? One that teaches all the elementary and principal branches of medicine and surgery, and receives the approval of the A. A. C..

We all know how difficult it is many times for doctors to agree on diagnosis and treatment. Many of us have heard of the reporter who visited a large number of physicians and gave the same history of his complaint to each and received from each a different

diagnosis and prescription. Hence I am in favor of the use of one's judgment in the matter of naming the disease and its treatment unless the case is so plain that it would be scarcely possible to err. I have known of serious mistakes, even in this age, and mistakes, too, where nearly all of the secretions have been carefully examined. We are too prone to rely on what we do not know and believe that we know it. We should be permitted to make use of all the known means of relief, whether it be regular medicine, osteopathy, chiropathy, homeopathy, Christian Science, suggestive therapy, or anything that will do the work. All have their advocates and by the use of judgment each may have a place.

Survival of the Fittest. I believe implicitly in this saying: Any doctor who is not able to keep in the swim, with his head up, must sink. There usually is a cause for this and there is consequently a sequence. Anyone who is able to secure a diploma from one of our present day schools must surely be able to succeed. If not, then his personality or habits are to blame and perhaps he cannot help that. Some men have winning ways, others repulsive, and with equal advantages the one will gain the confidence of the public and the other will prove a complete failure. Such a man is unfortunate and should retire to the laboratory or look for another field of labor. I have said in the beginning that I am in favor of abolishing all boards of medical examiners except as hereinafter advised. I believe that a board of examiners should be established in New York, Chicago and San Francisco to pass on foreign diplomas and examine applicants. These boards should be appointed with special reference to their qualification. They ought to meet frequently and examinations should be fair but thorough. After either board passes an applicant and a license is granted, then the applicant ought to be permitted to select any state in the union to pursue his chosen vocation.

Resume. 1. Appointees of the governor may be incompetent and made for political ends.

2. Boards create a monopoly in restraint of trade.

3. They create a self-satisfied profession and by barring competition lead to professional stagnation, or at least do not stimulate further research.

4. No good reason why graduates of regular recognized schools of the U. S. A. should not be allowed to practice anywhere in this country.

5. A recognized school is one that teaches all the elementary as well as principal branches of medicine and surgery and allows the widest range in Therapy, receiving the approval of the A. A. C.

6. Survival of the fittest.

7. Boards are unconstitutional.

8. A board of examiners should be established in New York, Chicago and San Francisco, to pass on all foreign applicants and diplomas, and in all cases a fee should be exacted to cover the expense of these meetings.

HOT AIR TREATMENT.

By J. A. Burnett, M. D., Hartshorne, Okla.

In order to give the hot air treatment, a costly apparatus made for this purpose must be had. There is no comparison in a hot air apparatus and a vapor bath cabinet and no comparison in the results obtained from them.

When we conside that water boils at 212° F., that 140° F. is as hot as moist heat can be tolerated and with a good hot air apparatus dry heat can be applied up as high as 500° F., we know there is something out of the ordinary about hot air treatment.

The hot air apparatus is not for laity use but is used by a physician or a

trained nurse under his instructions.

There are some contraindications in hot air treatment. Dr. F. E. Satterthwaite says "The idea is prevalent in some quarters that hot dry air is depressing and should not be applied in cases of chronic heart disease, arterial schlerosis, neureusthenia and anaemia. As a matter of fact, however, it appears from recorded experiences that patients with cardiac or arterial diseases may not be injured if the treatment is carefully applied, that is, if it is begun with slowly rising temperature or with a single limb, then two limbs, and finally the body. Of course, if untoward symptoms occur in a case associated with chronic heart disease, the treatment will necessarily be suspended. But I have heard of no mishaps which indicate that this treatment is contraindicated. Of course, it is presupposed that the treatment is always to be under the direction and supervision of a physician."

There is practically no danger in a hot air treatment. A patient may in rare instances get burned a little by the wrapping getting out of place and collecting steam. They are usually informed of this and understand they assume this risk.

The hot air treatment is always or most always used in connection with drugs or any other form of treatment that may be needed. While the hot air treatment is of real value in various diseased conditions, no one claims it to be a "cure all" or that it is the only treatment needed. In speaking of the hot air treatment Dr. F. H. Little says

"Each case I have treated by this method has given me more confidence in it not as a 'cure-all' but as a very valuable adjuvant in the treatment of chronic and deep-seated inflammatory affections of the joints and soft parts."

Dr. A. W. Myers says: "It may be well enough to state that no claim has been advanced even by the most ardent advocates of hot air treatment that it is a panacea for innumerable ills, but only that it is a material remedy of positive value, and that for many conditions as an adjunct to the treatment of many diseases both acute and chronic there is nothing which can compare with it"

Because the hot air apparatus is not portable it is especially adapted to office practice and chronic diseases. I devote special attention to office practice and chronic diseases, hence this makes the hot air apparatus of much interest to me. The hot air apparatus is not as important to a physician in general practice or one who prefers to do a calling practice or one who devotes special attention to office practice and chronic diseases. On account of the time required to give the treatments, one hour is the average time to keep a patient in the hot air apparatus besides the time to prepare them for the treatment and the after treatment. The entire time to give the treatment is usually estimated about two hours. The hot air treatments are usually given once a day or two or three times a week. In rare instances in real bad cases two treatments a day are given for the first few days.

My fee for giving a hot air treatment is $2.00 for a single treatment, but when a number of treatments are given I allow a good discount in proportion to the number given. A physician can make more money prescribing or filling calls in city or country in the same length of time than by using a hot air apparatus at the prices I charge or what the average physician charges in giving hot air treatment. The regular fee for hot air treatment should be $5 for each treatment. Most patients want to be cured and in the quickest way. I fully believe a large majority would be willing to pay a liberal price for hot air treatment if they knew its real value.

In giving a hot air treatment the clothes are first removed from the

parts to be treated and then they are wrapped in Turkish towels, which absorb the moisture and make it possible for the high degree of heat to be used. The hot air treatment is a great pain reliever and is of value in a great variety of pains.

Dr. J. G. Broduox speaks of the hot treatment being a good pain reliever and on this account saves many a man from being addicted to the use of morphine. He says:

"In my experience with it in chronic cases it gives relief and freedom from pain that no other remedy I have ever seen will do and there is no objection to its use."

Dr. Leonard states that the hot air treatment is a dead shot for blood poison. The hot air treatment is of value in all forms of rheumatism, as acute and chronic anticular muscular rhumatoid arthritis gonorrhoeal rheumatism, which is really not rheumatism.

Good results are claimed for its use in acute gonorohoea. It is of value in sciatica lumbago (pain in the back), acute and chronic gout, arthritis (or inflammation of a joint), or tubercular synovitis, acute or old sprains, myositis (or inflammation of the muscles), dysmenorrhoea due to neuralgia or rheumatic diatheses, hyperesthesia following frost bite, traumatic and neurotic spine ovaritis, pleuritis obesity, uremia neuralgia except in the face, periostitis of tranmatic origin, Bright's disease, syphilis, pains of locomotor ataxia, atropy of the muscles, anchylosis or stiffness of the joints, pleurodynia, stitch in the side or pain in the side, eczema, skin diseases of a parasite origin, gangrene, chronic and indolent ulcers, infected sores, and various other diseased conditions.

In regard to the time required to cure a case, it depends upon the condition. Some cases can soon be cured and with some it takes considerable time. Dr. C. L. Hutchison reports curing a case of chronic rheumatism in ten treatments. Dr. H. Stein reports relieving a case of sciatica by giving a hot air treatment every day for one week and then every second day for another week. Some cases will require more treatments than others. The way to do is to give the patient treatments as needed until the results are obtained As a rule, in all chronic cases, even after apparently well, it is best to give a treatment once a week or once every two weeks for some time in order to be more certain of a cure and to prevent relapse as much as possible.

PELVIC DISEASE IN INSANE WOMEN.

When operating for acute appendicitis, it some times happens that the condition of the appendix is such as to warrant the belief that some other lesion is responsible for the patient's symptoms.

Exploration should be made before removing the appendix, but in order easily to find the appendix again, after the exploration is finished, pass a thread through the mesenteriolum and bring its two ends outside the abdoment and clamp them with a forceps. It takes a little longer than to catch it with a forceps, but the thread takes up less room in the wound than the forceps, and with it there is no danger of injuring the bowel during the exploration.—Interstate Medical Journal.

Emmetine is at present receiving very favorable mention in some of our foreign journals as a cure for amebic dystentery and also for amebic abscess of the liver. The dosage is small and the time required very short.—Interstate Medical Journal.

The Wisconsin
Medical Recorder

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PUBLISHED BY
WISCONSIN MEDICAL RECORDER
JANESVILLE, WIS.

SUBSCRIPTION PRICE

$1.00 per Year in Advance; Single Copies 10c in the United States and Mexico.
$1.25 per Year in Canada.
$1.50 per Year in Foreign Countries in the Postal Union.

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We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Reports and items of interest are gladly received.

VOL. 16 NOVEMER, 1913 No. 11

THE EVER PRESENT QUACK.

I know all the readers of the Recorder have been following with interest the articles that have been appearing in the Chicago Tribune and many other daily papers throughout the country for the last few weeks exposing the "Quacks" in our large cities. This exposing of the worst kind of quackery known to the profession will without a question work for the betterment of the profession in every way, and be an untold benefit to the thousands of misguided people who each day visit these different medical institutes as they are called, and just as regularly as they call just as regularly are they fleeced of their hard earnings, and in many cases are they ruined for life by the treatment they receive from these "quacks." It is strange but true that a large part of he population consider a doctor a doctor, whether he is connected with one of these institutes or not. In consequence, the ethical members of the profession have to suffer for the mistakes of the quacks, and these patients who are treated by these men and receive no benefit, are soon found to be trying some other means for obtaining a cure for their various ailments.

Let the good work that the Chicago Tribune has started go on until all these medical charlatans are driven out of business. It is pleasing to note that practically all the foreign papers published in this country have joined in this crusade against these men, in a most effective way, and that is by refusing to accept any of their advertising. It has been proven that a large percentage of their business is done among the foreign population of our cities, and they hear of them through their advertisements in their foreign papers which they read religiously. A better work was never started than this. Let us all give it a boost whenever the opportunity presents itself.

On one of the previous pages, under the heading Miscellaneous, you will find a reprint from the New York Sun, Sunday, Oct. 26, 1913, in regard to the Friedman cure for tuberculosis.

Some months ago an editorial appeared in the Recorder, as well as an article by one of our contributors, in regard to Friedmann. The editor of the Recorder holds the same views now as he had then. However, as was stated in the editorial, we are at any time only too glad to give recognition to any known means to cure this scourge; but we do not believe in anything that is misleading or in the nature of a quack remedy. The article printed in the Times states that Friedmann's cure is obtaining some recognition in Germany among some of the better physicians. If this much vaunted cure has some merits and can ac-

complish cures, if only in cases of surgical tuberculosis, it will be a big boon to humanity; and if Friedmann has been a much abused man I know the medical journals of the country will do all in their power to give him all credit due him for his discovery. Let us all hope a remedy has been found. The Recorder will be among the first to give credit where it belongs.

FRIEDMAN'S SERUM MAY BE RECOGNIZED.

Its use shows "surprising results inn Surgical Tuberculosis, it is said. Prof. Kraus praises it. He urges all physicians in Germany to test alleged cure.

Dr. Frederick Franz Friedman shows signs of being able to "come back." Prof. Friedrich Kraus of the University of Berlin, head of the medical clinics of the royal hospitals and regarded as one of the foremost medical authorities of Germany, declared unreservedly that Dr. Friedman's treatment has had "surprising results" in surgical tuberculosis, but he reserved his opinion on its value in pulmonary cases.

Dr. Friedmann took advantage of the international anti-tuberculosis congress, which came to an end after four days' of discussion, to hold a demonstration of his patients in the amphitheatre of the medical clinic of the Royal Hospital in Berlin. About 300 physicians, medical students and others were present. Only a comparatively small number of the delegates to the anti-tuberculosis congress availed themselves of the invitation to attend Dr. Friedmann's demonstration.

Prof. Schleich showed a dozen cases in which he declared he had used the knife only once during the year he has been working with Dr. Friedmann. Prof. Erich Mueller and Dr. Thalheimer followed, showing patients and illustrating the progress of the cures by the aid of Roentgen plates. Prof. Kraus then made a speech which was followed with the closest attention. He said:

"I can state upon the results of two months' observation in my own clinic that local tuberculosis can be bettered, that it can be kept isolated and that Dr. Friedmann's serum shows no injurious effects. In surgical cases one must as an honorable man say, and I have the courage to say, there lie surprises. Even if it is assumed that only the test cases have been shown here, we are justified from the Roentgen plates in thinking that tuberculosis of the lungs also can be favorably influenced."

Prof. Kraus added that those who could read the plates would have to admit that a change for the better had taken place. He said, however, that he wanted to speak of the lung cases with great reservation. His experience with Dr. Friedmann's serum in his own little clinic had been only of two months' duration, too short a time to be able to form an opinion. He desired to say he still had doubts, but urged physicians to avail themselves of the fact that Dr. Friedmann has placed his serum at their disposal to try it for themselves. Dr. Friedmann announced that his serum would henceforth be available to the medical world without restructions or conditions.

The standing and reputation of Prof. Kraus are such that his attitude is likely to turn the tide in favor of Dr. Friedmann in Germany. His words seemed to have better weight with the assembly than the cases shown.

It is all very well to tell a patient that he owes his wonderful recovery chiefly to his strong constitution. But it is well to go slow with flattery until the bill has been settled.

ABSTRACTS

KNEE-JOINT DISARTICULATION.

F. J. Gaenslen, Milwaukee, Wis. (Journal A. M. A., October 18), describes his method of disarticulation of the knee-joint, devised for the purpose of securing a broad weight-bearing surface, utilizing the patella in addition to the condyles. In common with other disarticulating operations there is no necessity for carrying the artificial limb to the tuber ischii for support as in thigh amputation. "The principal points in the technic are the preservation of the patella and the extensor apparatus by division of the patellar ligament close to the tibial tubercle; lengthening of the quadriceps tendon to allow the patella to be brought down into apposition with the lower surface of the femur, and the performing of an an arthrodesis between the patella and femur in the intercondyloid space at such a point that the pressure-bearing surface of the patella will lie on a level with the condyles. In this way weight will be distributed equally between these three large smooth surfaces, thus affording an eminently satisfactory weight-bearing surface. Furthermore, the skin covering the patella is usually more or less thickened and therefore suited for bearing pressure. The muscular balance of the limb is little interfered with. The various methods of amputation in this region are discussed. Gaenslen thinks that when one has a choice, disarticulation with lateral flaps seems to have its advantages when used in the operation of Stephen Smith. His own procedure differs from Smith's in the lengthening of the quadriceps tendon, allowing the patella to be brought down between the condyles; arthrodesis between the patella and the intracondylar surface and its fixation in this position by suturing of its ligament to the hamstring tendon and capsular tissue behind. A case is reported and the article illustrated by roentgenograms.

THE INFANT GASTRO-INTESTINAL TRACT.

The results of radiographic studies of the gastro-intestinal tract in infants by H. D. Chapin, New York, are published (Journal A. M. A., October 18). He mentions the advantages of this method over that of dissection and says it has already changed some of the parts concerned. Two cases were observed with reference to the rapidity of passage of a suspension of barium sulphate through the small and large intestine. In these cases it passed through in seven hours, but it must undoubtedly be expelled from the stomach and intestine more rapidly than ordinary food. He refers to an observation of Holzknecht of the intermitten progress under normal conditions of food passing through the intestine, especially in the large intestine, where these jerky progresses occur only at long intervals and last only a few seconds. Another series of experiments was made to observe the location and form of the sigmoid flexure with special reference to the possible passage of tubes. It was seen that there was much difference as regards mobility in various parts of the colon. In one of the cases the ileocecal valve was patent, which Kraus says is the case in new-born infants. This is a matter which deserves future study. The sigmoid flexure in these cases showed remarkable variations in form and situation and seems to occupy a greater space than has been supposed. It is evident from these and other studies that it is rarely, if ever, possible to pass a tube through the flexure. The article is very fully illustrated.

Wisconsin Medical Recorder

A Monthly Journal of Medicine and Surgery, devoted to the best interests of the profession

VOL. XVI DECEMBER, 1913 No. 12

FEVER

G. G. BURDICK, M. D. and THEODORE C. F. ABEL, M. D., Chicago

This clinical symptom is usually regarded with apprehension by the laity and many physicians as something to be fought with any means at their command. We regard it as a protective measure, one angle of a complicated process used by the animal body to protect itself from danger.

It is probably a safe rule to regard fever as a phenomenon associated with the formation of bacterial products. Although it should be known that it is not uncommon to find a subnormal temperature in certain infections, as diphtheria or gangrene, due to the activity of the Colon Bacillus. This phenomenon does not mean that these bacteria are not capable of producing fever in normal individuals, but we choose to regard it as a sign of an inability of the patient to protect himself from the infection, and in all of our cases death has invariably taken place promptly.

Like all of nature's processes, fever may at times need control, but no effort should be made to suppress it unreasonably, as by so doing we are only interfering with nature's process of fighting the invasion of dangerous bodies, and our patients are harmed by the interference.

We have not found it necessary to attempt the control of any individual increase in fever for many years, as we find by our system of treatment that the temperature seldom goes to within one degree of the normal run of cases as accepted clinically.

We must regard fever as being due to increased oxidation, or an increased expenditure of energy, to destroy poisons elaborated by bacteria, and we aim to keep our metabolism as near the normal point as we should find it in health; by maintaining a chemical equilibrium and feeding clean food.

The proper amount of water is given at intervals, and in su⅛cient quantity to remove the normal waste required. The intestinal tract is kept as clean as large enemas can make it, with a mild saline laxative each morning to flush out the upper intestinal canal.

Physiological salts are used in doses sufficient to supply such needs of metabolism as the urine may show necessary by analysis each twenty-four hours. As a general rule it will be found that alkalies are required in increasing quantities as the fever goes higher, as the ammonia function of the liver is early involved in the majority of these cases, and an alkalin starvation results within twenty-four hours.

If the need is not supplied by the physician, or if we stop the alkali salts, the temperature begins to rise. The tongue becomes coated, and the patient is not so bright, and is very apt to doze, except when disturbed for some attention.

For many years we have not fed any animal albumin in our fever cases, and

even in typhoid fever the same system has been used of feeding cereals, fat, fruit juices, together with purees of various vegetables, and have never seen any evil from it, on the contrary much good. Our patients do not lose much flesh, and we have found that as a general rule they are never as sick as we have been taught to expect by former experience.

In typhoid fever the clotting powers of the blood are tested twice each week and any loss is corrected either by calcium lactate (soluble) or some foreign serum. We have never had a hemorrhage since we have followed this system. We aim to anticipate complications and keep the body thoroughly prepared to meet them if it should be necessary.

Where a patient, who is anemic, is undergoing a severe attack of fever from some cause, hypodermic injections of iron are given every other day, the same as we would do in health. If there is a low white count, we use arsenic with our iron.

This has given excellent results in our hands, and we have never seen any bad results follow. We do not approve of, and have never given any, antipyretics to our fever cases. From one to two baths a day are given for the comfort they give, and to remove any waste products that are eliminated through the sweat glands.

Our experience has been so satisfactory that we believe other clinicians can try this system with profit. We leave nothing to chance, but have the urine saved each twenty-four hours and a complete analysis quantitative of the end products of metabolism established. Blood counts are made at least twice a week, and our therapy is influenced solely by these findings. This has resulted in a very simple therapy, which can usually be found in the ordinary kitchen.

Vaccines are used in all cases where it is possible to establish the causative micro-organism. These are preferably prepared from the patient's own culture, but we have had equally brilliant results from stock vaccines. It is not clear at present in just what way fever acts as a protective measure, but some studies carried out with leucocytes on a microscopic stage, with a temperature regulator, furnished some information of importance.

It was found that the leucocytes were sluggish at 100° and increased activity at 102° and began to exhibit considerable curiosity regarding carmine granules that were placed in the field. When the temperature was increased to 104° a perfect frenzy of excitement was noted, and the granules were absorbed in great quantities, some of the polymorphonucler cells taking as high as six of them in a few minutes. The same procedure was carried out with the typhoid bacillus,and the same phenomena were noted. It is clear that in this manner a great number of bacteria are destroyed during a high temperature that under less favorable circumstances would cause a serious condition.

It is apparent, however, that the destruction of great quantities of bacteria is no simple matter, even under the most favorable conditions, as great quantities of toxins would be liberated by their digestion and thrown into the circulation, so that if even the leucocytes do their duty it is apparent that the physician has as great a duty to perform. He should make it a point to see that the body is properly supplied with water, that its chemical balance is maintained, and that sufficient fuel is supplied to keep the necessary energy to main metabolism at its highest degree of efficiency.

This does not mean that the patients should be stuffed with a miscellaneous assortment of food, regardless of their ability to take care of it, but sugars

should be given freely with the alkalies and such other foods as starches, fats, fruit juices, with such vegetable purees as may be agreeable and will be assimilated. Over-feeding is just as dangerous as under-feeding and must be carefully guarded against.

We have never seen any bad results from a constant fever of °105 but have resorted to the wet pack in the few cases where the temperature has gone above that point, as as happened in a few cases Cerebro-Spinal Menengitis prior to three years ago. Since we have used the spinal drainage and serum we have not had a case that has reached 105° after the diagnosis was made and treatment adopted. In fact we are more concerned by an unusually low temperature than a high one, as experience has taught us that these patients are of low resistance.

THE ELIXER OF LIFE?

W. STUART LEACH, M. D.,
Roseau, Minn.

From time immemorial mankind has been on the alert for a cure-all or the "philosopher's stone," and in all ancient and modern medical literature we find innumerable reference to this magic stone, this transmuter of metals, this elixir of life. Is there such a thing in existence? It is the common accepted opinion with the laity that such a thing is absurd. Most of our instructors give the subject little or no thought. But could the greatest lights in the world's history, such men as Democritus, Pythagoras, Paracelsus, Bulwer Lytton, Goethe, Van Helmont, and St. Germain, Compte De be mistaken?

"Where smoke is there must be some fire" is a saying worthy of application here. After nearly a quarter of a century of faithful digging I find, however stupendous the statement may sound, that what the world considers a "will-of-the-wisp" is a literal truth that can be self demonstrated. All physicians and chemists who have heretofore proclaimed this great fact have been denounced by the world as cheats, quacks, bombastic idiots, etc. No one individual of the first fifteen hundred years of our Christian era has had a greater effect for the better on medicine and chemistry thanParacelsus who was hounded to his death by well-meaning people. In reading his history you will find that the most of it was written by his bitterest enemies, namely, the court physicians and the state clergy, and in reading between the lines we see that they have honored him without knowing it.

His demoncratic simplicity, his lack of vanity, his revolutionary teachings, his clean rags, caused the proud to denounce him as a drunken vagabond and a bombastic fake, just the opposite of what he was in reality. Although it is a sad indictment, but the physicians of his day united with the clergy in destroying him, which finally culminated in his being thrown over an embankment, breaking his skull. It was then published to the world that he had become intoxicated and destroyed himself. They thought that he was going to destroy their means of a livelihood.

Paracelsus was the son of a master of the Teutonic Order, born two miles from Zurich, Switzerland, year 1493. Bear in mind that one meaning of Master is one who has the mastership over natural forces when it is for the advancement of the race. A master will not impart the knowledge or surrender the key to another person for honors, gold or its equivalent, and what seems insanity to the world, the neophyte vows never to use the powers for his own personal advancement. He

may be starving for food, but is not permitted to convert a single stone into bread. For others he can feed or heal if his wisdom deems it in harmony with natural laws. He can overcome a physical law by the use of a higher or super-physical one. Some pre-ordained things he must not interfere with. There are some cases of illness he must not touch with laws beyond the physical. An ignorant world would call the work magic, but it is not; it is a perfected state of being in harmony with nature in the chemical, mental and spiritual worlds. It is knowledge, wisdom, and the "Hidden Light." This "Hidden Light" is imparted by a master to no individual who is immortal in word, thought or deed, or to any who would take advantage of his fellow beings weakness.

Many men of many minds followed Paracelsus for the purpose of obtaining his secret, but as a rule they were found unworthy to receive so great a trust. For the priests and the university professors to be considered unworthy was a mental saber-cut into their vanity too severe to bear. His student, the master artist Raphael, was found worthy.

The learned Oporinus, who was well skilled in the Latin and Greek tongues, traveled with him for two years without learning a thing of the secret. Many of his followers who deserted him had been condemned for their intolerance of others' opinions and for their greed. Vanity, being injured, framed up charges for the master's persecution. Paracelsus was so tolerant of the religious opinion of others that he is credited as having said that he would have no scruples in consulting the devil if he could learn any medical secrets.

He taught that all things sprung from one single principle, the "Great Mystery." This mystery is identical with the "Chaos" or Spirit of the Rosicrucians and "The Great School"; and is conceived of in a vague way as veiled up in the ether by some of our modern physical scientists. All things he taught that before coming into our physical or form world exists in a mire real state in this "Chaos" and are brought forth by a Word. As the vibratory impulse of the children's song "Doodle-up, doodle-up" has for thousands of children brought forth the little insect from the funnel shaped hole, so do all things exist by a word peculiar to itself. This word Paraselsus calls the "Signature of Things." The Theo. S. call it the name by which things are known, the Great School call it the Word, John the Apostle calls it the Word, the oriental occult schools call it "Om." The Freemasons call it the "Lost Word." The alkaloid of a plant has its own peculiar word, sound or vibration, and its this peculiar vibration the neophyte must learn when given the master-key. Certain words or characters produce or cure disease, and it is through these expressions the world has distorted the meaning of exalted teachings into and called them a "recourse to magic for the cure of disease." Harmonic knowledge will be held back from none who "digs" and merits it. To place it in the hands of a selfish or evil-minded man would result in untold destruction. Two edged swords are not given to infants for playthings.

Paracelsus refers to three great principles in the chemical world which he calls Salt, Sulphur, and Mercury, and which the learned Dr. James and others have distorted unmercifully. Consider these principles symbolical, as mercury for destructive, sulphur for constructive and salt for combination. Read his teachings n the light of the school of natural science. Bacon severely censured his actions but we find

this same Bacon later in his lift drinking from the identical fountain of information.

The world gives Harvey credit for discovering the circulation of the blood but Sylvius de la Boe, and Tachenius drawing their inspiration from Aureolus Philippus Paraclsus Theophrastus Bombast de Hehenheim explained it in detail years before. See Preface Page 88 of James Fragments of Medicine published 1776.

ACRONITE AND VERATRUM

C. F. LYNCH, M. D.
Terre Haute, Ind.

Aconite and veratrum are two remedies that are much used and perhaps equally as much abused. Many use either aconite or veratrum without any particular reference to the indications which may be present to indicate the use of the one or the other. Others play double safe and just use the two remedies in combination. To those who understand the remedies each has its clear cut indications and contraindications and to such a practitioner it will rarely be necessary to throw the two remedies together in the one prescription.

Aconite as used in medicine is obtained from the root and leaves of the Aconitum Napellus, a beautiful flowering plant that grows in Europe and the United States. The physilogical activity of the drug and its therapeutic efficiency is largely due to the presence of a very powerful alkaloid—aconitine.

Veratrum and its preparations are obtained from the rhizome and the roots of veratrum viride, the American Hellebore or fram veratrum album, the White Hellebore of Europe. Veratrum contains three principle alkaloidal constituents, viz., veratrine, jervint and veratroidine.

In their physiological action there are many points of similarity and also many points of distinction between the two remedies.

EXTERNAL ACTION AND USES.

Aconite preparations produce a characteristic tingling and prickling sensation in the skin, followed by a period of local numbness and analgesia. This is also to some extent true with veratrum, but not so characteristically so as with aconite. Aconite liniments and aconitine ointment are commonly applied locally for the control of neuralgias, and especially so for trifacial neuralgia. Veratrum and its preparations are rarely so used.

INTERNAL ACTIONS AND USES. 1. GASTRO-INTESTINAL TRACT.

Aconite is a gastro-intestinal irritant, but not nearly so powerfully so as is veratrum. Veratrum is a very powerful emeto- catarthic, and rarely produces fatal poisoning, because of this action which forcibly empties the stomach before sufficient of the drug is absorbed to produce a fatal issue. This is due in large measure to the presence of the alkaloid veratroidine, which is a very powerful gastro-intestinal irritant.

In accordance with these facts we find that aconite is the preferable agent for use in handling the acute inflammations of the gastro-intestinal tract. In acute gastritis or enteritis and especially so in these diseases when occurring in children, Aconite is a remedy of remarkable efficacy. Combined here with small doses of ipecac after cleaning out the bowels by suitable measures such as enema or mild chloride of mercury and castor oil this agent is almost specific, acting both by its local and general influence.

In this connection it may well to say that aconite is pre-eminently a child's remedy. In all acute febrile conditions of childhood aconite is the remedy par excellence. Its mild sedative action is most pleasing to watch, and given in minute dosage repeated at frequent intervals it is one of the most reliable remedies we possess in our entire armentarium. One-tenth of a minim of a good reliable preparation such as the Specific Tincture Aconite or a reliable fluid ext. repeated every ten or fifteen minutes will produce much more satisfactory results than will larger doses at long intervals. Aconite is a drug which is very rapidly absorbed and equally rapid in its elimination,and must be administered at short intervals if a continuous effect is to be maintained. When administered at intervals of three or four hours the patient has intervals in which he is under the influence of an over amount of the drug and other intervals in which there is no effect of the drug, it having been entirely eliminated before a second dose is administered.

2. THE RESPIRATORY TRACT.

Both aconite and veratrum are marked respiratory depressants, but aconite is much more powerfully so than is veratrum. In treatment of the acute inflammations of the respiratory passages the use of these two remedies is very large. In deciding which remedy is to be the remedy of choice the pulse indications should be laryely followed as well as the age of the patient.

In acute respiratory affections of children aconite is the remedy of choice. This applies especially well in the treatment of the coryza of measles where small doses of aconite in association with euphrasia or ipecacc to which gelsemium may be added if there is marked nervous irritability.

In the adult acute inflammations of the respiratory tract and especially pneumonia may call for either aconite or veratrum, and in making the selection of the remedy the circulatory symptoms must be taken largely into account.

In those patients who present a small, quick, hard, sharp pulse, with a hot dry skin and suppression of secretions, aconite is the remedy of choice and may well be continued with some such agent as sweet spirit of nitre to aid its action upon the circulation, skin and urinary apparatus.

Veratrum on the other hand is indicated in those more sthenic cases where there is a violent circulatory reaction. The pulse is full and bounding in character and comes up under the finger like a hammer at each beat. The skin is not so often hot and dry as in aconite cases, but more often is found to be of moist character and covered with warm perspiriation.

Neither of these remedies are to be used in those asthenic cases which are met with in the aged, in alcoholics and those who have been previously weakened by some pre-existing disease. It is only in the sthenic cases, which are particularly common in the country and mining districts, that these remedies are applicable. When indicated the properly selected remedy applied in proper dosage and at proper interval will show most pleasant results.

3. Circulatory System—

Aconite is commonly referred to as a heart depressant. This is true of the large doses which are commonly recommended to be used. But when administered in proper dosage aconite is by no manner of means a heart depressant. On the other hand, by its mild sedative action it is much more efficient as a heart stimulant and conservative than such agents as digitalis and strychnine which are so ignorantly administered at the onset of pneumonia by a large army of physicians who are not properly grounded in the principles of therapeutics.

The primary action of small doses of aconite upon the heart in acute febrile conditions is to slow the rate of the beat and at the same time to increase the force of the systolic contractions with lengthening of the diastolic period. There is very little or no action upon the vaso-motor centers but there is a slight and often well marked decrease in the blood pressure. In this manner the power of the heart is conserved and not more rapidly exhausted as is the case after the use of such agents as strychnine and caffeine.

Veratrum is a more powerful heart depressant and in addition has a well marked depressant action upon the vaso-motor center which results in dilatation of the blood vessels and lowering of blood pressure. So remarkable is this action that agent is frequently referred to as the "therapeutic lancet."

4. ACTION ON EMUNCTORIES.

It is here that the superiority of aconite is especially evident. The drug is a marked diaphoretic and this action is especially to be noted when properly administered in fractional doses at repeated short intervals. Aconite also possesses a well pronounced diuretic action, and both of these may be enhanced by proper combination with such agents as sweet spirits of nitre or spirit of Mindererus.

Veratrum possesses very feeble diaphoretic or diuretic powers and therefore is not by any means as useful as an eliminant as its congener, aconite.

SPECIAL USES.

Veratrum possesses one special use in which it is not only superior to aconite but in which it is superior to any other agent in the materia-medica. This is the treatment of puerperal eclampsia. It is practically specific in these cases when properly handled. It must be administered with a fearless hand, and the primary dose should be from 20 to 30 minims of a reliable fluid extract or the Norwood's Tincture. This should be given hypodermically and the pulse carefully watched. This dose should remarkably slow the pulse at or near normal. At the same time proper eliminant measures may be instituted to rid the system of the toxins which are creating the disturbance. Veratrum properly administered in these cases should prevent the recurrence of the convulsions after the initial dose. No more pleasing example of exact therapeutics is to be met with than this.

There are many other conditions in which these remedies might be compared with advantage but necessity for briefness prohibits further discussion.

A. J. Underhill, Baltimore (Journal A. M. A.A, April 5) reports two cases of intermittent pyuria diagnosed as due to infection of the prostatic utricle. In each case the posterior examination of the urethra through the endoscope showed the verumontanum swollen and edematous and pus could be washed out from the utricle. The condition was relieved by injections of 1 per cent silver nitrate and in the second case the same, later replaced by quickly withdrawn injections of 1:1000 solution of liquor formaldehyde. The point of interest in the cases was the intermittent pyuria lasting a day or so and followed by a disappearance of all symptoms during the intervals until sufficient pus has accumulated for the pressure to overcome the resistance offered by the adherent opening to the utricle. Another point of interest in the second case is the fact that the ejaculatory ducts opened into the utricle, as spermatozoa appeared every time it was aspirated. It is surprising that the seminal vesicles and the epididymis were not also infected more severely than was the case.

IMMUNITY AND VULNERABILITY

IAIAH MILEY, M. D.
Anderson, Ind.

That mankind possesses a natural immunity against disease the history of the race attests, else there would be no race history. This immunity has manifested itself under all circumstance, and conditions of life. In the open, in hovels, and pretentious palaces, in prisons, alms houses, and jails, in the midst of contagion and infection, in miasmatic and musketo infected districts, among rats and fleas, and other things like these, this immunity has ever clung to men.

This is sufficient proof to me that this immunity must be sought within the man. Now I do not decry the sera and vaccines ;but that men able to pursue this subject to a correct solution upon any line should spend all of their talents upon the line of the sera and vaccines is ill advised and unscientific. For certainly the avenues that lead to a discovery of the cause or causes of natural immunity are not closed, or crossed by insurmountable barriers.

My contention is that as a normal child at birth has a strictly asepic gastro-intestinal tract, and for a period of days or months remains immune to contagion; that to preserve an aseptic condition of the canal, not substituting pathological for physiological processes nor imposing super functions upon the organism, preserves this immunity.

The child is also provided with an organism equal to the exegencies required for the growth and development of its physical body, and the unfoldment of its mentality; provided the proper food be placed within its grasp. Its care takers, however, ignorant of digestive processes and proper fods, thrust foods upon it which arrest, pervert or destroy digestion; substitution, fementation, decomposition, or bacterial disintegration; substituting pathological for physiological processes, creating new chemic substances toxic to the organism, imposing upon them the super functions of eliminating natural waste and creating antitoxin sufficient to neutralize the toxins generated in the gastro-intestinal canal and to eliminate a major portion of the unnatural waste; we will have only subjective symptoms; but when this compensation fails objective symptoms supervene, and we may have vomiting, diarrhoea, pain and elevation of temperature, caused by rapid chemical action.

Every observing physician knows that for the first ten or twelve months of a child's life that the major portion of its ailments are gastro-intestinal. True, the absorption of the toxic gases by the veins being eliminated by the lungs, will cause a few dry rales to be heard in the lungs, but not sufficient to demand special treatment.

This process of fermentation being repeated again and again, causes the organism to be under fed, at the same time imposing upon it the new duties of creating antitoxin and eliminating unnatural waste. Is it logical to believe that a system thus handicapped can make itself entirely free from this unnatural waste and neutralize all these new chemic poducts?

It is my conception of this condition that the ogans of elimination are filled to repletion with this unnatural waste. In this dead effete material and only in such material do the germs of disease find an inviting field in which they can thrive and exploit their powers of destructive multiplication. After the child has passed its first year of life and gastro intestinal fermentation has been repeated many times and the involuntary organs have been kept in a more or less of a toxic condition, with

the sympathetic nerve underfed, it is natural to suppose that a large amount of toxic matter has found lodgement in the various organs and fluids of the body, in which the various bacilli will also find lodgment by invitation, from their travels through the intestinal canal ,and they will multiply in this new chemic product, which has converted immunity into susceptibility.

Typhoid and tuburcle bacilli and pneumonococus thus enter the blood current, are carried through the ascending vena cava into the right heart, thence through into the lungs, which now find in addition to eliminating carbon dioxide that toxic gases from the intestinal canal are also present in them, opening this source for the entrance and cultivation of pneumococus; hence after the first year we look for pneumoniaand broncho pneumonia, the origin of which may be traced to the intestinal canal. The tonsils also come in for a large share of elimination of gastro-intestinal poisons, which fill the crypts and afford lodgment and a culture media for passing germs.

Diphtheritic bacilli, coming in contact with this excreta in the tonsil, soon being to multiply, and through the medium of toxic material generated in the intestinal canal, they and their ptomains invade the entire body. But an organism already burdened with the production of antitoxin to neutralize its own production of toxins soon loses its compensating power, and the patient succumbs. Now at this point, where this compensating power is ready to fail, is where diphtheritic antitoxin serves us so well.

But if the tonsils, as well as other organs of the body, be free from these toxic materials, the individual remains free from any objective symptoms of diphtheria, and this is the sole cause of his immunity.

Now upon the one hand we have seen the mouths of intestinal veins bathed in toxic material, the product of gastro-intestinal fermentation absorbing these products and through the blood current carrying them to the various organs of the body filling the excretory organs with this unnatural waste, which stands inviting the entrance of pathogenic germs, providing abundant food for their growth and multiplication.

This is the susceptibility of authors, and the taking cold of the laity. Upon the other hand, we see an individual whose gastra-intestinal tract contains the product of normal digestion, the intestinal veins are bathed in liquid containing the elements required, for growth repair, furnish heat, and dispose of natural waste. The openings of the excretory organs are filled with normal excretion which forbids the entrance of pathogenic germs. This is immunity.

Pathogenic germs enter the body only through the medium of patholoical tissue. If this were not true, and the germs of disease could make successful attack upon normal cell tissue, then there would be no one born immune, none could acquire immunity, and no one could have immunity thrust upon him.

The time is coming when the colleges and great men of the profession will teach this great truth. Then we will have a complete revolution in therapeutics. It will establish therapeutics upon an absolutely scientific basis, a basis from which logical deductions may be made that will explain all pathological conditions which we are called upon to treat. It tells us why patients sometimes have none but subjective symptoms. As a factor in producing immunity and in keeping people well it is vastly superior to and much more scientific than vaccines.

Already British army surgeons, who have used anti-typhoid vaccine extensively, say while they have a lessening

of typhoid they have an increase in tuberculosis, giving the vaccines credit for the increase. No doctor living can call to mind any case of a neurosis of any character or degree, typhoid, incipient tuberculosis, or pneumonia, that did not have a history of ill health of weeks or months or years previous to his being called. Every one of them had a history. Indigestion and intestinal fermentation, substituting an acid content of the intestinal tract instead of the normal alkaline one. Depositing this unnatural feces in the colon, where it remained to generate toxic gases, and breed bacilli which gave only subjective symptoms, producing what the people generally and unthinking doctors are pleased to call imaginary disease; something that never did and never can exist. It produces the spirit of exaggeration, which is the whole of psychology.

Those members of stricken families who remain immune are those in whom the above conditions did not obtain. The absence of this factor was their immunity. A colon full of feces generating toxic gases is clearly entitled to the belt as the champion bacilli hatcher and disease breeder of the world. It is the parent etiological factor of all disease, and furnishes the key to all therapeutics. Now I hope no one has so feeble a grasp upon my meaning as to think that I decry the methods of scientists for the destruction of sources of disease, and for establishing immunity. I am simply calling attention to the fact that for the discovery of vurnerability, and the establishing of immunity, the alimentary tract is the major factor with which to reckon..

Let those who can designate the specific errors of my deductions show me better.

ADVICE TO YOUNG DOCTORS

FRANK P. DAVIS, M. D.,
Enid, Okla.

When you arrive in the town where you intend to locate, be sure to visit the drug store and the saloon the first thing you do. If it is a small town ask the storeneeper if he has any 25-cent cigars. It will impress the bystanders with your importance.

Never visit the old doctor. It is better to pose on the corner and smile knowingly when the old doctor drives by in making his visits.

Whatever you do be sure to size up every woman you meet to see if she will probably need the services of a doctor soon. Country women so appreciate to be gazed at by young cubs when they are in this condition. Get acquainted with their husbands and tell them about your wonderful success in the seven hundred cases you handled in the hospital.

If some woman should consult you impress her with the danger of having anyone but an experienced (?) scientific young physician to attend her. Tell her she is in danger of instant death if her urine isn't "analyzed" every twenty-four hours.

Always carry a book in which to write the names of all the women who are in a family-way. Then you show the list to the men you meet on the street and tell them you have all those cases booked ahead. Women so admire this sort of attention.

Remember that no self-respecting young physician should take any interest in church affairs.

Always have a lot of town loafers in your office. Keep your reception room full of tobacco smoke and also have a handy bottle of Old Crow in your medicine case. The ladies admire this in a doctor's office.

Be sure to diagnose every case of bellyache as appendicitis and rush the patient to some city hospital. The operator will tell you what a bright doctor you are, and may even pay your expenses and introduce you to some of the nurses.

About the time you get enough practice so you can almost pay your board, it is time to buy a lot of books on installments. It wil convince the populace that you are a "student and a well-read man."

Along in the summer of your second year is the time to get married. It is not necessary to have any money saved up at such a juncture.

In arranging your home buy a lot of cheap furniture on credit. It would be a mistake to buy a few good pieces and wait for the balance.

Always marry a girl who says "I seen" and " done." When you rise in the world she will continue to talk that way to remind you of your happy honeymoon.

Don't forget that the man who said "A professional man can rise no higher in his profession than his wife can socially" was an old fogy and didn't know what he was talking about.

Make friends among the sporty classes. They will teach you to drink stale beer and play poker, and if you should happen to win they will owe you the money.

Never for a moment think of asking about the pay when you have a call from a stranger who lives nearer to another town than he does to you. The fact that the doctors at the other town will not do his practice must not deter you from doing it.

Always hound your poor patients for the money due you, but never under any consideration mention your bill to your rich patrons. You might lose some practice if you make them all pay.

Regardless of every other thing answer every call, and don't think of such an "unprofessional" thing as to inquire about the pay. People might not think you are in practice for the "honor of the profession."

Never have an opinion on political matters, or if you do be a rabid partisan and argue with every man you meet. People just dote on jelly-spines and cranks.

After a couple of years of making sport of the old doctor it will dawn upon you that the citizens of that town appreciate an up-to-date, class A-plus scientific physician, and you will be ready to move to another town or "specialize." The old doctor will still be busy.

A WORD TO OUR FRIENDS

The editors and publishers of the Wisconsin Medical Recorder take this occasion to extend the felicitations of the season and to express the appreciation of this journal for the loyal support, words of encouragement, and co-operation given by its many friends and readers in all parts of the country during the year just passed.

It will be the aim of the Recorder to strengthen at all times its material with an idea ever to the welfare of its readers. Its articles have been first class the past year and the program for 1914 will be even better.

Suggestions for improvement of the journal will be welcomed always.

WISCONSIN MEDICAL RECORDER.

ARGYROL and PROTARGOL

J. A. BURNETT, M. D.
Hartshorn, Okla.

There are several silver preparations on the market and the manufacturer of each claim his to be the best. Personally I am not prepared to say which is the best and each physicians must of course form his own conclusions. Possibly argyrol and protargol are the best known silver preparations and used more extensively than any others. I am not prpared to say which one of these preparations are best. My experience has been mostly with protargol simply because I first got in the habit of using it, it gave satisfactory results and is considerably cheaper than argyrol. One ounce of argyrol costs $1.50 and one ounce of protargol costs $1.25.

There is not much difference in the cost per ounce but when we consider the per cent solutions of each preparation that is used we can then see a great difference in the price. For instance, in acute gonorrhoea, argyrol is begun with a 10 per cent solution and increased to a 20 or 25 per cent solution ;or if a patient wants the quickest and better results, it is begun with a 20 or 25 per cent solution at first. In acute gonorrhoea protargol is used in ½ to 1 per cent solutions. A four ounce bottle of 25 per cent solution would cost over $1.50, while a four ounce bottle of a 1 per cent solution of protargol will cost less than 10 cents.

The cost of drugs is certainly a matter worthy of consideration by all physicians who do their own dispensing, a thing that in my opinion all should do. If they do not do their own dispensing the cost of filling prescriptions at drug stores cuts a figure with many patients. Even when one drug is far superior to another in a certain case the cost of using it must be considered with many cases. To give a rough estimate it costs about fifteen times as much to use argyrol in acute gonorrhoea as it costs to use protargol, or, in other words, a physician doing his own dispensing can treat about fifteen cases of acute gonorrhoea with protargol as cheap as one case with argyrol.

There are likely but few physicians that have compared the prices of these two drugs and many would be surprised to notice the difference and would not guess it near as much as it is. I would not have thought there was as much difference until I was about to make an order for drugs, and supposing to myself that these two remedies were something near equal in therapeutic results, which would I order. After counting a little I saw that one ounce of protargol would go about as far as one pound of argyrol. In some conditions argyrol is used in 50 per cent solutions, as in cystitis, ulceration of the cornea, vaginitis endometritis, ulcerations and erosions of the cervix, ozaena, purulent middle ear disease with osseous necroses tonsilitis, and pharyngitis.

Protargol is rarely ever mentioned in solutions over fifty grains to the ounce, which is practically a 10 per cent solution. I only remember one writer (Keyes) who mentions it over fifty grains to the ounce. Keyes stated he had used it as high as 40 per cent.

In diseases of the mouth where a solution is used as a wash, protargol has advantage over argyrol in not tasting so bad. Protargol was brought into use by Prof. Neisser, the discoverer of the gonococcus, which is evidence of it bearing value and worthy of due consideration.

Argyrol, protargol and other silver preparations are of value in gonorrhoea, leucorrhoea, nasal catarrh, tonsilitis,, puritus thrush, some forms of

diarrhoea, dysentery, prickly heat, as well as many other things.

As I now know argyrol and protargol, and considering the prices, etc., if I was limited to just one of them I would select protargol. In gonorrhoea possibly argyrol solutions are less irritating in some cases than protargol. I have seen but few cases where protargol solutions caused any pain. Protargol can be used with anti-pyrin or alypin nitrate. In cases where the urethra is very sensitive a 5 per cent solution of orthoform can be used several minues before the protargol is used. Some use a weak solution of quinine and urea hydrochloride a few minutes before the protargol. Protargol is soluble up to 50 per cent. I know a druggist who states that argyrol is absolutely not soluble over 10 per cent and that stronger so-called solutions are only suspensions.

If I understand it right protargol is a German product and argyrol is a United States product. The German products are often being accused of being sold at extravagant prices, but of the two remedies under consideration the United States seems to have Germany "skinned."

For further information see my article on "Protargol" in March, 1913 Medical Summary, and my article on "Argyrol" in July, 1913, Medical Summary.

It would be interesting to see a comparison of some of the silver preparations both from a therapeutic and cost standpoint.

I have learned a few things by experience. One is some drugs are too costly to use in some cases if the physician does his own dispensing, and if he writes prescriptions he can soon injure his practice very much by prescribing drugs that cost too much. No druggist could afford to fill a prescription calling for a four-ounce bottle of a 25 per cent solution of argyrol for what he could for one calling for a four-ounce bottle of a 1 per cent solution of protargol. If a druggist figured to make 100 per cent profit he would have to charge about $3 for the argyrol solution and about 25 cents for the protargol solution.

The time is here during this high cost of living when both doctor and druggist must consider the cost of drugs, and I feel sure the majority of patients are going to consider it.

THE ROENTGEN RADIOMETER.

Is an instrument used in connection with the well-known Pastilles of Sabouraud.

The whole outfit is put up in a neat leather case and includes twenty-four half pastilles, a pair of forceps for handling them, and a test gauge. This latter consists of a disc showing twenty-five carefully graded tints running from the exact color of a new pastille to that of one which has passed its usefulness. This disc may be rotated in such a manner that if the pastille be placed in the upper part of the opening the sample tints will show immediately below, and the exact shade be determined. The pastille is placed in this opening before exposure to the X-ray and the tint determined: then, after exposure, it is tested again, and if it has changed four divisions, a full epilation dose has been given.

Full directions accompany each radiometer.

Advise the early removal of any tumor of the breast. Never wait for signs of malignancy. Have all tumors so removed examined by a pathologist and in the event of their being malignant have the radical operation done as soon as possible.—Interstate Medical Journal.

EMOTIONAL INSANITY

AMOS SAWYER, M. D.
Hillsboro, Ill.

Is there such a thing, At present a majority of the medical profession as well as the laity will answer affirmatively.

In my opinion a person is either sane or insane and this condition cannot be changed by external circumstances, in other words (at will) or if it can, then he is before God and man as responsible as when acting under the influence of intoxicating liquor.

We all know how eager the lawyers are to establish this condition in the case of a murderer when he committed the deed, for if you can convince a jury that his act was not voluntary conviction is impossible. If this condition (emotional insanity) can by medical testimony be established, the battle has been won. The popular opinion that a man can become so angry that he loses all control of his actions and when in this condition he frequently take a fellow being's life and therefore is not legally responsible for the act, to my mind is a jumped at conclusion stated by the defendant's counsel as a fact to the jury. This opinion is sustained by the following illustrative facts.

Some years ago, during a political campaign in Boston, Mass., while discussing the merits of the candidates a very popular Irishman was struck a terrific blow by an opponent, an unknown person. A friend of the assaulted man ran through the crowd frantically crying, "who struck Billy Pattison," declaring if the man could be found he would break every bone in his body. At last an unusually large man said, "I struck Billy Pattison." At this, after a glance at his opponent's huge proportions, he said, "Begorra, you hit him a hell of a good lick," and quickly walked away. Now had a small man taken the place of the giant the enraged Irishman might have killed the man and in that event the defendant's lawyers, backed by medical testimony, no doubt would have declared it a case of emotional insanity. But in this case the disease vanished by the suggestive treatment, sure cure for so-called "brain storms."

Again, witness the actions of an emotionally insane "brain stormed" mob; how quickly the disease (?) disappears and they become sane, when confronted by glistening bayonets and deadly powder and ball of the militia.

Napoleon opened his cannon loaded with grape and cannister shot on the emotional insane ("brain storm") mob of Frenchmen who barricaded the streets in Paris in their attempt to overthrow his government, with this new way of administering a curative medicine the disease (?) instantly disappeared and during his reign never manifested itself again.

When the "emotionallly insane" (?) Jews had Christ taken before Pontius Pilot for condemnation and crucifixion, he said: "I am innocent of the blood of this just man; look you to it." The mob answered: "His blood be upon us and our children," and it has been for they are despised and persecuted by all nations. This was God's punishment for a crime modernly called emotional insanity, though most of our juries seem to question the wisdom of His decision in this matter by setting similar criminals free.

I have expressed my opinion freely on this sugject and by illustration to strengthen it; for opinions like men, are seriously respected only when they have power convincing, then only do they command respect. Law is the expression of the will of superiors who have the power to enforce that will in others. Medical testimony in such cases with God and angels looking in, should be given as advice to one who

has the ability and power to decide as to its value, and not to a body of men lacking this acquirement. After all it is no wonder the testimony of the expert witnesses, men of equal reputation and mental calibre, differ, so that it confuses judges and jury and they are unable to decide which is right, and they giving the culprit the benefit of the doubt as ordered, he goes clear. Upon whom does this disgraceful condition rest? Upon the medical profession alone. The remedy is to refuse to acknowledge that such a condition can exist. A person at will to be sick (insane) one moment and well (sane) the next, there's not a parallel disease recorded.

The relation between the doctor and the judge and jury is a very responsible one and the testimony (advice) given, should be as plain and forcible as possible. And the judge at the time of trial should appoint the examiners and thus eliminate money influenced testimony.

Remember what Jesus said about lawyers (11th chap. St. Luke): "Woe unto ye lawyers, for you laden men with burdens grievous to be bourne and ye yourself touch not the burdens with one of your fingers; woe unto ye you lawyers. You have taken away the key of knowledge; ye enter not in yourselves and them who were entering ye hindered." No wonder Jesus said this, for the Jews always found a lawyer willing to entrap Him. So I say, beware of the lawyers as they, in this the 20th century, have not changed but prevent you giving honest testimony by asking confusing questions.

The negro when attempting to commit a rape is not to blame, he is emotionally insane (?) but if the victim's cry for help brings the desired assistance how quicly after the black brute discovers this, the disease (?) vanishes, and he uses every means to escape—instantly becomes sane (?).

Is it not strange this plea is not set up in the case of burglars, train robbers, et al.? Certainly they are entitled to it.

Is there any more unsatisfactory disease to treat than neurasthenia or hysteria. I had tried almost everything recommended without effecting a cure. Most so-called remedies in some form contain bromides masking the effects but not removing the cause, but unfortunately dealing sledgehammer blows to the digestive organs and causing a disgusting disease of the skin on the face (acne.) .

In over fifty years battle with this disease I had surrendered and as I thought, truthfully, informed my patients that there was no cure for this disease. About two years ago a teacher that had to give up her school for this reason informed me she had secured another for she was cured and gained 18 lbs., had recommended the medicine to many others with the same result. I asked what the remedy was she answered sanatogen. I at once purchased a package for a lady patient who had been a sufferer for over 40 years and made her promise to follow the directions. She did so and kept it up until cured. As it is dangerous from a single instance to infer the whole I refrained from calling attention to the remedy and do so now because I have never known it to fail to give relief and if persisted in effect a cure. It is not a medicine but a nerve food. If its composition is what it is represented to be.

The complaint is frequently made that "it is too costly," but a $3.50 bottle will last 6 weeks and that is cheap when you see the results.

In over 50 years practice I have never given a certificate to any firm manufacturing proprietory medicine, and do not now, as you must purchase a box to learn the address

MISCELLANEOUS

HARMLESS HOBBIES FOR DOCTORS.

By W. T. Marrs, M. D., Peoria, Ill.

For several years I have written a little something from time to time of the value of harmless hobbies for physicians and I note that the idea seems constantly to be gaining ground and that it is quite generally recognizedthat nearly everybody, even the child, needs some interests outside his chosen line of work or studies.

Recently I noticed at a child welfare exhibit of some magnitude a "hobby booth" for children where it was designed to encourage some outside interest in the young. While the real purpose of a hobby is to furnish an individual rest and recreation, yet one that is well chosen and given diligent attention may lead one into an avenue of research and possibly be of ultimate benefit to the pursuant, and possibly to the world. Edison, Watt, Burbank and Wyeth are a few of the thousands of individuals who had hobbies and who made good at the game.

There is a wide difference between having a hobby and being a crank. The latter is an individual who is likely to become obsessed with a hobby and see things from an erroneous viewpoint and magnifies his pet endeavor out of all due proportion.

At the booth in question I read the query, "Why have a hobby?" The reasons assigned were to the effect that a child—or adult either for that matter—ought to learn to have some "good times" without "the crowd" or "the gand;" to have something to do in spare time without trying to "kill time." And the way to have a hobby was told in this succinct manner:

Collect something.
Do something.
Enjoy something.
Look for something.
Write something.

Do it "just for fun," and you will have a hobby.

The hobby field is wide but fewer enter therein that should. No one can tell you what hobby you should adopt; it should be something you have always cherished—some foolish (?) thing you have always wanted to do but never had the nerve to tackle. One great man of history was an expert mol-catcher, another made lanterns, another filed needles. One deceased president fished, a living ex-president shot lions.

You may not care to raise mushrooms, or homing pigeons, or write poetry, or be a connoisseur of old pewter or furniture. Your fancy might lead you to a study of astronomy, or the cultivation of flowers, or a study of orthnology. One physician friend has a whole room full of taxidermic specimens which he captured and mounted himself, a fine collection of raccoons, skunks, squirrels, eagles, birds of plumage, etc.

Still none of these may appeal to you. How about juggling or balancing? This is said to be an excellent corrective of unsteady and aberrant nerves. Then you might try sleight-of-hand, ventriloquism, palmistry, boxing, swimming, growing ginseng or studying ants. The writer studied and practiced hypnotism for amusement several years ago and it has always seemed to me that the research thus employed awakened new and profitable lines of thought.

Before adopting a hobby one should reflect seriously on whether it is one above reproach and whether its pursuits may or may not lead one into questionable lines of thought or habit. If the physician sees fit to throw his efforts into any of the uplift move-

ments now on foot, all well and good. They need your help and you will be strengthened by your aid in all such lines of endeavor. But the primary object in view in adopting a hobby is to select something that is of no great and overwhelming importance; otherwise it is not a hobby. A hobby should mean play or diversion. Read the above list over again. If you have no hobby perhaps one may suggest itself.

STATIC ELECTRICITY.

By J. A. Burnett, M. D., Hartshorne, Okla.

Static electricity is one of the oldest electrical currents used for therapeutic purposes. Some say it has a wider range of therapeutic usefulness than any form of electricity. There are various static machines on the market and a great difference of opinion as to their value. Some of our best authorities claim that the cheap static machines are worthless and this is a matter worthy of due consideration.

The market is flooded with worthless apparatuses of various kinds and a physician should be very careful in buying anything very costly. It is always best to purchase apparatuses of any kind with a guarantee. This guarantee should be of two kinds, guaranteed as represented and guaranteed satisfactory.

When a manufacturer will not give both of these guarantees you will know at once he wants to sell something that will not be satisfactory. Don't get caught on the guarantee as represented alone as you may purchase something that is as represented and when you get it find it does not suit you.

Static electricity has a very decided effect on all body functions. If sparks are given they are painful. Dr. H. W. Barnum says:

"We are always careful not to deceive a patient by saying sparks do not hurt. They are painful and they must be applied to the most tender and painful spots for there is the congestion we are trying to relieve.

He also states:

"One should study the patient and not give such a vigorous treatment that he will never come again."

Static electricity is of much value in headache, lumbago, sciatica, arthritis deformans, rheumatism and various other conditions. The static machine is used to generate the high frequency current.

Most all claim the high frequency current is the greatest or most general pain reliever of any of the electrical currents but a few claim static electricity is a greater pain reliever than the high frequency current. The various physical methods of treatment deserves more attention.

A physician that only knows the use of drugs and the knife is only half educated and the one that only uses drugs and the knife is only doing about half what could be done for his patients.

The noted surgeon Dr W. W. Keen said: "My most dangerous case: My medicine case."

Dr. H. A. Hare the well known author, editor and professor had the following to say before the American Medical Association:

"In my lectures I now advise my students to use physical measures whenever possible to the exclusion of drugs."

Science in general is based upon accepted opinion, but in every detail is exposed to the scrutiny of individual research. The whole aim of scientific training is to teach reliance on one's own findings.—J. Rae, Universal Medical Record.

MEASUREMENT OF X-RAY DOSAGE.

This subject is one of the greatest importance. Many condemn the X-rays in treatment who have no idea of what dose they are giving their patients. Some curable cases are remaining uncured; many cases are being burned, for this same reason.

Various methods of measurements have been put forward. Most, or all of them, depend on the Sabouraud pastille for measurement. The pastille is to all intents and purposes a disc about three sixteenths inch in diameter, cut from especiallly prepared platinum barium cyanide screen made up under a certain formula.

The original Sabouraud pastille method was to furnish these pastilles in book form with a standard, or B tint, and the pastille being placed half way between the anode of the tube and the skin, being supported on a piece of metal, and at least two C. M. away from the wall of the X-ray tube, then exposing until the pastille changed in shade to the standard B tint, which represented the greatest dose that the human skin can receive without having loss of hair or dematitis. This method is used by many now. Should an intermediate dosage be wanted, it is hard to judge when to stop, there being no intermediate shade.

On this account, the radiometer (The Hampson is one of the best, and easist to handle of any) has been adopted. Dr. Hampson's method was to put the Sabouraud pastille directly on the patient at or about the part to be treated. The new pastille matches the zero on the Hampson scale of color, the pastille being left in position, and the patent exposed until it has changed four shades by the radiometer.

This instrument is used in connection with the well-known Pastilles of Sabouraud.

The whole outfit is put up in a neat leather case and includes twenty-four half pastilles, a pair of forceps for handling them, and a test gauge. This latter consists of a disc showing twenty-five carefully graded tints running from the exact color of a new pastille to that of one which has passed its usefulness.

This disc may be rotated in such a manner that if the pastille be placed in the upper part of the opening No. 1 (see cut), the sample tints will show immediately below, and the exact shade be determined. The pastille is placed in this opening before exposure to the X-ray and the tint determined: then, after exposure, it is tested again, and if it has changed four divisions, a full epilation dose has been given.

Full directions accompany each radiometer. A word of caution should be given, namely, always test the shades in carbon filament, or candle light. Do not use daylight or light from a tungsten filament lamp, because the shades will not accurately match.

Should an intermediate dose be desired, you can expose until the pastille changes one shade, two shades, or more.

After an exposure, the pastille should be put in the daylight and it will then return to its normal shade, or nearly so; and by the Hampson method it is not necessary to start with a new pastille. An old one can be used, and if it matches No. 10, for instance, the treatment for a full epilation dose would be No. 14. In other words, four shades on the radiometer represent a full epilation dose.

In the winter, or where the climate is particularly hot and dry, the pastille should be kept suspended in a jar with a little water; in other words, to prevent their drying out and changing color, they should not be kept in an excessively hot nor an excessively cold temperature.

The question has been asked how long it takes to change shades. It would be well to try this out with your own apparatus; simply focus the rays on the pastille, watch the change and get familiar with the time necessary before treating a patient. It of course varies with the machine, with the tube and its vacuum. There is no reason, however, why this pastille method cannot be used with any apparatus, small apparatus taking longer, and larger apparatus a shorter time. This time as reported by various operators has been from five minutes to thirty minutes.

AN INTERESTING CASE.

By R. J. Smith, M. D., Bancroft Idaho.

The following case may be of interest to your readers.

Mrs. M., aged 40, childless, in fair health, always robust, except for attacks of gastric pain during the previous year, came to me for examination. Diagnosis of gallstones and chronic appendicitis was confirmed on operation one month later, May, 1912. In August following, she complained of nausea, vomiting, pain in region of gallbladder, menstrual periods had ceased, although always regular, breasts seemed to be enlarging. No vaginal examination was made at this time, but the diagnosis was pregnancy. Examination disclosed only slight enlargement of uterus. Again in April, 1913, when full term pregnancy was anticipated, I again examined, found uterus enlarged to about six inches and a tentative diagnosis of false pregnancy or hydatidioform mole was made. No urgent symptoms arising, it was decided to await developments, and in August, cramplike pains with free hemorrhage and expulsion of a pearshaped tumor, five inches in length, cleared up the case. The patient has improved in every way and is now in excellent health. The interesting point is that the uterus expelled its contents one year from initial symptoms of pregnancy.

"RESTRICTION OF SALE AND USE OF POISONS A NECESSITY."

Extract from editorial, The Medical Times, New York, December, 1913.

"Secretary McAdoo of the Treasury Department does well to call the attention of the leaders in Congress to the necessity of pushing restrictive legislation regarding interstate trade in poisons. It should be impossible for any person not a registered physician to obtain poison of any sort, except upon prescription, and then only when every percaution had been observed.

"The ease with which so deadly a poison as corrosive sublimate can be purchased is ridiculous. We can hardly read a daily paper without learning that some one has died from the effects of this poison. Many of these deaths are due to accidental self-administration, in mistake for a "headache remedy," but others are plain suicides. Since the death of a southern banker several months ago, after taking bichloride tablets inadvertently, this drug has been a favorite for those seeking self destruction.

The sale of every kind of poison should be surrounded with every possible safeguard.

"As a matter of act, we cannot see why bichloride of mercury is employed in medicine. It is dangerous in the extreme, and the great number of deaths following its accidental use have demonstrated the urgent necessity of curbing its sale.

"It would be far better not to make use of bichloride at all, especially when we posess a harmless substitute, equally efficient in every way, according to the Council of Pharmacy and Chemistry of the American Medical Association,

in the form of Chinosol. This drug is, this authority says, "a powerful antiseptic, somewhat stronger in this respect than mercuric chloride, and considerably stronger than phenol." It can be used wherever corrosive sublimate is indicated, and, being nontoxic, its employment will do away with the dangers which accrue from the usage of Hg. Cl2.

"In this connection one is led to wonder why this wave of bichloride poisoning appears to be sweeping over the country."

The above extract from "The Medical Times" is well worth the utmost consideration of all medical men as well as the laity. Too much publicity cannot be given this matter and the sooner laws are passed to restrict the sale of these deadly poisons, except by a physician's order, the sooner will this accidental and intentional death from these means be stopped.

WOOD ALCOHOL POISONING.

The report of the case of another victim of wood alcohol poisoning which follows surely deserves a place in our Journal. We hardly pick up a Medical Journal these days without finding a report of a similar case. Publicity is the only thing that will stop the use of this poison. I received a time ago a couple of reprints from Dr. Casey Wood of Chicago, reporting similar cases to this one, and I am sure Dr. Wood will be glad to send any of our readers similar reprints upon request.

New York City, Oct. 27.—Gustav Kenz, the young varnisher who was made blind for life by breathing the fumes of wood-alcohol varnish which he used in the Bernheimer and Schwartz Brewery to "coat" the inside of their large storage vats, will today resume his suit against the brewery in the Supreme Court of Brooklyn, to recover $10,000 damages fir the loss of his sight. This suit was interrupted by the sudden death of M. E. Bernheimer, who dropped dead in the court room on September 25.

Immediately after Kenz became blind, his case was investigated by the New York Committee for the Prevention of Blindness, which is waging a vigorous war against wood alcohol poisoning.

"This case is a tragedy," said Miss Van Blarcom, Secretary of the Sommittee, and it should never have occurred. Two of Kenz's fellow-workmen were killed by these poisonous fumes while working with him in the vats. one of these poor fellows knew, when they crawled into the vats through the small manholes, that the fumes of the varnish which had been given them to use, might cause their blindness or death.

There is no excuse for the continued use of wood alcohol in varnish since denatured alcohol is cheaper, and absolutely safe for all industrial purposes." This is not the first accident of the sort which has occurred in the Bernheimer and Schwartz Brewery. A year ago, one of their employes was blinded and another killed in the same manner. It is incomprehensible that in the face of this severe lesson the brewery should have been so unmindful of the welfare of its workmen as to continue using wood alcohol.

Miss Van Blarcom expressed the opinion that many brewers and the public generally do not know what deadly effect drinking or inhaling the fumes of this poison may have. The Commmittee is therefore endeavoring to inform the public concerning the danger of swallowing or inhaling it; to urge the use of denatured alcohol in the industries; to work for a law requiring that every container of wood alcohol shall be labeled poison; and to attempt to escure legislation or a ruling which will protect workmen against the danger of inhaling the fumes of wood alcohol.

The Wisconsin Medical Recorder

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PUBLISHED BY
WISCONSIN MEDICAL RECORDER
JANESVILLE, WIS.

SUBSCRIPTION PRICE

$1.00 per Year in Advance; Single Copies 10c in the United States and Mexico.
$1.25 per Year in Canada.
$1.50 per Year in Foreign Countries in the Postal Union.

ORIGINAL ARTICLES are solicited from our readers. We wish articles which are sent us to be contributed exclusively to this magazine. We will send the writer of any original article, if desired, twenty-five extra copies of the number containing the article. We are also willing to send copies to the professional friends of the author.

LETTERS, CASE REPORTS AND QUESTIONS are desired for our Discussion Department.

We are not responsible for the opinions expressed by our contributors. We are glad to publish all sides of questions of interest. We publish many communications with which we do not agree.

Reports and items of interest are gladly received.

VOL. 16 DECEMER, 1913 No. 12

As this the last issue of The Recorder for the year 1913 it seems to be a good time to again urge all subscribers to be boosters for their magazine. This last year has been a banner one for our magazine in more ways than one. We feel that we have gained the confidence of our subscribers and we feel that it is largely due to the character of the articles that have been issued from month to month. Hardly a day goes by that we do not receive letters in regard to some of the articles printed. As has been told you frequently we are only too glad to receive letters in regard to any artcile published in The Recorder, and I am going to take the liberty of publishing one of the same which was received lately.

Freistatt, Mo., Jan. 7.

Editor Recorder.

Dear Sir: In your November issue appeared an artcile on page 334 enttiled "The Boards of Medical Examiners."

This is the most sensible article toward medical reform that I have read in any medical journal, and I for one, desire to congratulate you for giving us this splendid article.

Dr. Fish strikes the keynote, and I believe he voices the sentiments of a very large majority of the medical profession. Yet not one word appears along this line in our official medical journals.

We all know that our state examining boards are appointed by politicians for political reasons, and many members of these boards are incompetent and could not answer the "questions" themselves for the reason that the most of them are made up of the boys who graduated a few years back, when they were required to only attend medical school two and three years, yet they have nothing to say about this.

I think the time is ripe for medical journals to take this matter up and act for the good of the whole profession. I not only agree with the writer, that boards are unconstitutional, but are a huge graft upon the profession.

Carlos Copeland, M. D.

The editorial staff has done all in its power to give the subscribers of The Recorder the sort of articles that they want. The above letter speaks for itself. Let us hear from more of you fellows, whether you like what you are getting or whether you do not. If we are on the wrong track we want to know about it, and we will do our best to get into line again. Let us all boost our journal and wish for it the best of success for the coming year, and let us remember that each one's efforts counts to make our journal the best and most practical journal in the middle west for the busy practitioner.

THE DOCTOR'S LIBRARY

GENITO-URINARY DISEASES AND SYPHILIS. By Edgar G. Ballenger, M. D., Adjunct Clinical Professor of Genito-Urinary Diseases, Atlanta Medical College; Editor Journal-Record of Medicine; Urologist to Westley Memorial Hospital; Genito-Urinary Surgeon to Davis-Fisher Sanatorium; Urologist to Hospital for Nervous Diseases, etc., Atlanta, Ga., assisted by Omar F. Elder, M. D. The Wasserman Reaction by Edgar Paullin, M. D. Second Edition Revised. 527 pages with 109 illustrations and 5 colored plates. Prife $5.00 net. E. W. Allen & Co., Atlanta, Ga.

This second edition of the work on "Genito-Urinary Diseases and Syphilis" by Edgar G. Ballenger, M. D., has made a timely appearance and brings to us the very latest treatment of these diseases, which are so often a bug-bear to the general practitioner. As this work has been previously reviewed we will note especially some of the newer points that are contained in its pages which are: The more satisfactory treatment of gonorrhoea; vaccine therapy; Roundtree and Geragrty's test for functional activity; pyclography; the Wasserman reaction and leuniten test; the cultivation of the spirochaeta pallida; the use of the dark field illumination in the demonstration of the spirochaeta pallida; the inoculation of animals with syphilis, and the discovery of salvarsan and neosalvarsan.

This is a wide range of important topics and one which the general practitioner will read with great interest. An important feature of this second edition will be found in the summary which appears at the end of each chapter. This feature of the work will make it a valuable one for students reference, and it will also give the busy physician the gist of the chapter in a few words.

More importance has been atttached to the commoner diseases met with than to those obscure diseases that a general man rarely meets. This feature will be appreciated by all who are fortunate enough to possess this work. No one will make a mistake in adding this valuable contribution to this subject to his or her library.

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"INTERNATIONAL CLINICS": Volume IV, Twenty-Third Series. A Quarterly of Illustrated Clinical Ledtures and especially prepared original articles. Edited by Henry W. Cattell, A. M., M. D., Philadelphia, U. S. A. Price $2.00. J. B. Lipincott Company, Philadelphia and London.

This fourth and last volume of the "International Clinics" to appear in 1913 is in every way up to the standard of the preceding volumes, both as to presentation of subjects and subject matter. It is hard in a work of this kind to go into the individual merits of each artcle. The fact that the "International Clinics" holds such a place among the Medical Libraries of the physicians of the country, is enough said.

Among some of the subjects treated in this volume of the Clinics are: "Newer Methods in the Teatment of Neuritis," by A. B. Hirsh, M. D.; "The Management of Common Forms of Poisoning," by Daniel M. Hoyt, M. D.; "The Diagnosis of Extensive Pulmonary Tuberculosis in Obscure Cases," by Charles M. Montgomery, M. D.; "Interpretation of Dreams, Based on Various Motives," by Meyer Solomon, M. D., "The Psyche in Diagnosis," by Robert G. Edes, M. D.; "Gunshot Wounds," by J. M. Gaston, A. M., M. D.; "Constitutional Immorality," by Paul E. Bowers, M. D., and many other equally interesting articles.

The Clinics bring the newer thoughts to our door, and should be found in every Medical Library.

"Diseases of the Nervous System": by Alfred Gordon, A. M., M. D. (Paris). For the general practitioner and student. Second Edition, revised and enlarged with one hundred and sixty-nine illustrations. Price $4.00 net. P. Blakiston's Son & Co., 1012 Walnut Street, Philadelphia, Pa.

We are very glad to review this excellent volume on Nervous Diseases for the manner of presenting the subject is most attractive both to the student and practitioner. The first chapter of the book is a concise review of the anatomy and physiology of the Nervous System. This is followed by Chapter II, which deals with the "Method of Examination for Diagnosis of Nervous Disease." This is a most valuable chapter, particularly to one who wishes to refresh his mind as to the different examinations to be made in these cases. The different nervous disorders are then taken up in an exhaustive manner, however there is no excess of words, the symptoms, etc., are stated concisely. This volume has been considerably enlarged and a number of important articles have been added to it, among them being (1) Fracture of the Skull; (2) Concussion of the Brain; (3) Lumbar Puncture; (4) Cerebro-spinal Fluid; (5) Wasserman Reaction; (6) Radiculitis; (7) Psychoanalysis.

Treatment has received special attention in accordance with the new data accumulated, such as administration of antimenigococcus serum, of salvarsan, surgical procedures, etc. There is no question but that this volume is one of the clearest presentations of the subject accessible to medical men.

ABSTRACTS

CONSENT TO NECROPROSY.

H. R. M. Landis, Philadelphia (Journal A. M. A.., January 3), gives an account of how necropsies are secured in nearly all cases at the Phipps Institute. Admission to the wards there is made contingent on the signing by the nearest responsible relative of a consent for the performance of a necropsy in case of death. There has been in the ten years of the Institute 614 fatal cases, and a necropsy was performed in all but ten. In these exceptions the right was not waived because of objections made after the death of the patient, and in only one case was there any probability of any resistance to necropsy by the family. The condition was required in incipent as well as advanced cases, and, with the possible exception of Jewish patients, it has had practically no influence on the demands for admission. There has never been a time when there has not been a waiting list.

POLIOMYELITIS.

Phebe A. Dubois, Josephine B. Neal and A. Zingher, New York (Journal A. M. A., Jan. 3), remark on the varying results hitherto obtained in inoculation erperiments with the secretions from the abortive type of poliomyeltis, and report an inoculation experiment by themselves on a monkey, with the following results: "1. Negative results from feces of patient with typical poliomyelitis. 2. Positive results (paralysis and microscopic findings) from washings of nose and throat of patient with abortive case seventeen days after onset. 3. Positive result (paralysis and microscopic findings) of second monkey injected with brain and cortex of monkey infected with washings. 4. Rapid loss of virulence of brain and cord."

FOOD-POISONING.

Percy G. Stiles, Boston (Journal A. M. A., December 27), gives his personal

experience, with detail of the symptoms, of food poisoning. The case is unusual in the early appearance of the symptoms which began to appear in three hours or less after the ingestion of the food. They began with faintness and general weakness and prostration, with attacks of nausea and vomiting. These were followed by vertigo and nystagmus together with cardiac irregularity, disturbances of vision, constipation, and lessened uinary secretion. The convalescence was gradual, taking over three months The mental condition was clear throughout, though the power of application was limited. The food to which the attack was attributed was minced chicken. No other cases from the same food occurred.

RADIUM.

A summary of the physiologic and pharmacologic effects of radium are observed by European authors is published by L. G. Rowntree and W. A. Baetjer, Baltimore (Journal A. M. A., October 18). Their knowledge is by no means complete, they say, and they only give the opinions, sometimes somewhat conflicting, of the foreign observers, but in their judgment its value is unquestionably established in chronic and subacute arthritis (luetic and tuberculous excepted), in rheumatism, gout, sciatica, neuralgia, polyneuritis, lumbago and the darting pains of tabes. In certain other diseases it is said to be of some value, though more data are required. These include chronic bronchitis and pharyngitis, pneumonia, myocarditis, arterial schlerosis, vasomotor disturbances, scleroderma, chronic lymph-node enlargements and chronic constipation. Certain authors have warned against its use in hemorrhagic diathesis and puerpera, gastric ulcer, pregnancy, marked neuroses, especially in involving the vegetative system, also advanced tuberculosis and polycythemia, but these last two are queried by the authors. Nephritis was at first considered a contra-indication but that it not now accepted. As regards methods of administration, baths have been in use for many years, the benefits of which are now credited to the radium emanation. It is sometimes used now as a local application to the skin, but the best method is by inhalation. This, however, is also the most expensive, requiring a special air-tight room or cabinet. Rowntree and Baetjer review the reports of foreign authors and tabulate the results reported before relating their own experience, which they say has not been altogether gratifying in their small series of cases. Their patients were treated entirely by drinking water activated with radium emanation, and were under observation for periods varying from two weeks to three months. The daily dose was from one-half to forty microcuries. The series of eighteen cases included five of infectious arthritis, three of which seemed to be temporarily benefited; five cases of muscular rheumatism and neuralgia, one apparently cured and another temporarily benefited, and three cases of tabes were unaffected, as well as one of acute rheumatism and one of sciatica with the same result. One case of Parkinson's disease was slightly improved for a time; one of nephritis and high blood-pressure received rather marked improvement. In one case of gout severe exacerbation followed the treatment. The most favorable results were in the arthritis cases, in which there was a slight definite lasting improvement after the first relapse. "We make no attempt to draw any conclusions as to the efficacy of this form of therapy from our small number of cases, but feel that any form of medication which has yielded the results reported by the European writers should be the subject of a much more exhaustive test.

ABSTRACT.

Dr. W. A. Puckner, director of the chemical laboratosy of the American Medical Association, investigated a number of the products furnished by twenty different pharmaceutical manufacturers and the degee of accuracy of each house was published in the Journal of the Americas Medical Association, September 3, 1913.

The results are given in detail and make it possible to summarize or classify them in various ways. For example, the average strength of all the preparations made by each house may be calculated. An objection to this method, however, lies in the fact that the preparations above strength, of any one house, might exactly counterbalance the ones under strength and the house receive thereby a perfect mark.

The preparations examined, namely, hypodermic tablets morphine sulphate tablets, potassumi iodide, solution of potassium arsenite, fluid extract of hydrastis and fluid extract of digitalis, should be divided in summarizing results, into two classes. The first four mentioned are amenable to exact chemical assay and it is possible, therefore, to determine within a fraction of one per cent, the exact dev'ation from standard, or conversely, approach to perfection of these preparations. Their standards are definitely fixed, either by the Pharmacopedia or by the manufacturer's claim —100 per cent of the claimed stength being the target at which each manufacturer aims.

The other preparation however, namely, fluid extract digitalis, is one for which no definite standad of strength has been fixed. The preparation is official but no assay processes have been provided by the Pharmacopeia, so that a preparation made in strict accordance with the U. S. P. directions may vary enomously in activity. A limited number only of houses chosen for this contest make any attempt to standardize digitalis preparations. A few, however, have adopted physiologic methods of assay in an attempt to put on the market prepartions of uniform strength.

To the credit of all the firms, Dr. Puckner states that there was found no evidence of willful sophistication or adulteration in any product examined. He believes that none of the houses deliberately adulterate or sophisticate their standard drugs, but that the products of many of them are made by those "who are less competent and less skilled," than the others. It is the more complimentary to the H. K. Mulford Company, therefore, that it should attain the first place, with those who are doing their best to furnish standard articles. It is an emphatic endorsement of the competence and skill shown by the H. K. Mulford Company, and products of their manufacture.

THE PYORRHEA TREATMENT.

Pyorhea alveolaris is a destruction of the peridental membrane by suppurative inflammation, which proceeds from the gingival margin. The causation of this disease has never been determined whether constitutional or local or both.

The treatment which I have found to prove the best to my knowledge and experience is as follows.

Remove all calcarous matter from the roots. Then treat with a good tube, a Pifford tube which is made of lead glass except in the window outlet. This window is arranged to receive different size shields, for concentrating the rays to the part to be treated. The shields are also made of lead glass, and the rays can be thrown directly upon the gums. The time of exposure of this treatment is from two to five minutes, with the tube from 8 to 10 inches from the face. After this has been done, follow immediately by high frequency

treatment with vacuum electrodes with insulated stems suitable for the case, so that no other part than that to be treated will receive any of the current. The time of treatment with high frequency is fifteen to twenty minutes.

Where the Roentgen ray and high frequency treatment is given twice a week I use a 10% solution of potassium iodid to the gums or touch lightly with a solution of silver nitrate to promote the healing of the ulcers, then keep patient on a daily mouth wash.

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THROAT AFFECTIONS.

In all acute or chronic inflammations of the throat, pharyngitis, tonsilitis, and laryngitis especially, Gray's Glycerine Tonic Comp. will be found of exceptional value. Used in appropriate dosage it allays congestion of the mucous membrane and underlying tissues, thus relieving pain and soreness, and by imparting tone to the local structures helps to restore normal conditions. "Gray's," moreover, is particularly useful as a prophylactic measure in those patients who are peculiarly subject to frequent colds. In such cases, its use from time to time tends to increase the resistance of the local mucous membrane and enable it to successfully combat germ attack. Public speakers and singers are also greatly benefitted by "Gray's" and if administered for several days before putting the throat or voice to unusual strain, it can be relied upon to increase the strength and vitality of the local structures.

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THE ELEMENT OF UNCERTAINTY.

In the treatment of disease the element of uncertainty with special reference to individual idiosyncrasy, must always be considered, but the element of uncertainty as to the therapeutic action of a remedy can be eliminated providing ordinary care is exercised in selecting drugs or remedies which are not inert and have proven their efficiency.

For over 45 years, Hayden's Viburnum Compound has maintained its reputation as therapeutically efficient in the treatment of dysmenorrhea, menorrhagia, post-partum pains, puerperal convulsions and in pain resulting from spasmodic contraction.

It is a well known anti-spasmodic and as it contains no narcotics nor habit forming drugs, no disagreeable after effects is the result of its administration.

Given in teasponful doses, administered in boiling water, it will not disappoint you thus eliminating the element of uncertainty, and as it is not a secret remedy, but a carefully compounded and ethical pharmaceutical, it will render most satisfactory results in those conditions wherein especially indicated.

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AN ALTERATIVE OF LONG SERVICE.

It is mainly in chronic skin and glandular diseases that alteratives have found their most distinct field of usefulness, for these are conditions aggravated and continued by impaired nutrition and elimnation, in the correction of which alteratves show what potent remedial forces they are. Among the alteratives Iodia (Battle) has long enjoyed professional favor and in this will be found a striking demonstration of its value, for no class of drugs are put to a more rigid test than alteratives, so its long continued use by physicians is the best evidence that it meets the demands made upon it. Iodia (Battle) will show its power in chronic skin diseases, glandular involvements and in other states indicating the corrective influence of an alterative agent. A distinct advantage ed by Iodia is that it may be continued over long periods without causing distress.